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Kentucky Public Service Commission  
Electric Distribution Utility Annual Reliability Report

SECTION 1: CONTACT INFORMATION

UTILITY NAME: Nolin RECC

REPORT PREPARED BY: GDS Associates, Inc. D/B/A Hi-Line Engineering

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SECTION 2: REPORTING YEAR

CALENDAR YEAR OF REPORT: 2014

SECTION 3: MAJOR EVENT DAYS (MED)

TMED: 14.369

FIRST DATE USED TO DETERMINE TMED: 1/1/2009

LAST DATE USED TO DETERMINE TMED: 12/31/2013

NUMBER OF MED IN REPORT YEAR: 3

NOTE: Per IEEE TMED 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 accumulated.

SECTION 4: SYSTEM RELIABILITY INFORMATION AND RESULTS

System-wide Information

TOTAL			
CUSTOMERS:	<u>34,958</u>	TOTAL CIRCUITS:	<u>81</u>

5-YEAR AVERAGE (2009-2013)		Excluding MED REPORTING YEAR	
SAIDI:	<u>64.417</u>	SAIDI:	<u>153.159</u>
SAIFI:	<u>.738</u>	SAIFI:	<u>1.262</u>

5-YEAR AVERAGE (2009-2013)		Including MED REPORTING YEAR	
SAIDI:	<u>1802.488</u>	SAIDI:	<u>271.537</u>
SAIFI:	<u>1.283</u>	SAIFI:	<u>1.616</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 TMED.

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

CIRCUIT #1: \_\_\_\_\_ COLESBURG-1 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ COLESBURG 1 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - HALL & BRADSTOWN RD. - YOUNGER CREEK \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ COLESBURG-1 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ ETOWN, KY - YOUNGERS CREEK RD./ DEVERS RD. \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 42.12 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 403 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 1/23/2013 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	44.29%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	3.98%	TREES	43.68%
NO CAUSE CODE	8.05%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 44.11 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 191.2 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.64 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.96 \_\_\_\_\_

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

Review ROW conditions and vegetation management cycle.

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

CIRCUIT #2: \_\_\_\_\_ COLESBURG-4 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ COLESBURG 1 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - HALL & BRADSTOWN RD. - YOUNGER CREEK \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ COLESBURG-4 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ ETOWN, KY - LOWER COLESBURG RD/BATTLE TRAINING RD, HAPPY HOLLOW RD \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 29.40 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 218 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 12/30/2013 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	80.31%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	19.69%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 28.69 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 120.57 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.66 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.1 \_\_\_\_\_

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

Schedule feeder inspection to identify equipment for replacment.

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

CIRCUIT #3: \_\_\_\_\_ ETOWN 1-5 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ ETOWN 1 2 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - WOODLAND DR. - E-TOWN \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ ETOWN 1-5 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ ETOWN, KY - BYPASS/ BANKVIEW RD./ DIXIE RD./ FREEMAN LAKE PARK RD. \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 8.88 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 534 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 4/1/2015 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	29.24%	PUBLIC ACCIDENTS, OTHER	5.10%
EQUIPMENT / MATERIAL FAILURE	23.31%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	0.00%	TREES	42.35%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 49.34 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 297.59 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.7 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 0.92 \_\_\_\_\_

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

Circuit was trimmed on 4/01/15 to remedy tree related outages. Nolin RECC to monitor this feeder to make sure ROW issues have been corrected.

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

CIRCUIT #4: \_\_\_\_\_ FORT KNOX-2 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ FORT KNOX 14 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - HWY 313 - RADCLIFF \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ FORT KNOX-2 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ RADCLIFF, KY - SOUTH BOUNDARY RD (N. OF SUB.) / WAGON WHEEL TR / LIBERTY ST \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 4.40 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 514 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 7/5/2011 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	55.76%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	0.00%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	44.24%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 0.15 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 74.7 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.0 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.01 \_\_\_\_\_

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

Nolin RECC to work with EKPC to review remedies for transmission/substation reliability issues. Equipment inspection will identify other areas for correction.

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

CIRCUIT #5: \_\_\_\_\_ FORT KNOX-3 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ FORT KNOX 14 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - HWY 313 - RADCLIFF \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ FORT KNOX-3 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ RADCLIFF, KY - SOUTH BOUNDARY RD (N. OF SUB.) / AUSTIN DR / SHELBY AVE \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 18.37 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 781 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 7/5/2011 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	1.16%	PUBLIC ACCIDENTS, OTHER	28.34%
EQUIPMENT / MATERIAL FAILURE	20.71%	SMALL ANIMALS OR BIRDS	2.36%
LIGHTNING	30.38%	TREES	12.73%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	4.32%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 133.26 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 108.13 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.59 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.25 \_\_\_\_\_

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

Feeder inspection to identify equipment for maintenance and lightning arrestor placement.

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

CIRCUIT #6: \_\_\_\_\_ FORT KNOX-4 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ FORT KNOX 14 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - HWY 313 - RADCLIFF \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ FORT KNOX-4 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ RADCLIFF, KY - SOUTH BOUNDARY RD (N. OF SUB.) / 7th ARMORED DIVISION RD \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 3.18 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 243 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 5/1/2014 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	0.00%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	0.00%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	100.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 44.28 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 73.8 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.3 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.0 \_\_\_\_\_

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

Nolin RECC to work with EKPC to review remedies for transmission/substation reliability issues.

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

CIRCUIT #7: \_\_\_\_\_ FORT KNOX-5 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ FORT KNOX 14 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - HWY 313 - RADCLIFF \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ FORT KNOX-5 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ ETOWN, KY - BATTLE TRAINING RD. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 12.09 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 247 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 1/13/2014 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	72.44%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	10.10%	TREES	5.80%
NO CAUSE CODE	3.27%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	8.39%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 57.77 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 91.95 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.72 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.27 \_\_\_\_\_

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

Schedule feeder inspection to identify equipment for replacment.

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

CIRCUIT #8: \_\_\_\_\_ GLENDALE-2 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ GLENDALE 3 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - E. GLENDALE HODGENVILLE RD - GLENDALE \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ GLENDALE-2 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ GLENDALE, KY - SPORTSMAN LAKE RD./ OVERALL PHILLIPS RD. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 40.32 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 868 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 3/1/2015 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	39.55%	SMALL ANIMALS OR BIRDS	5.84%
LIGHTNING	35.85%	TREES	14.43%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	4.33%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 92.69 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 64.28 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.96 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.09 \_\_\_\_\_

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

Review overvoltage protection and sectionalizing on feeder.

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

CIRCUIT #9: \_\_\_\_\_ KARGLE-2 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ KARGLE 15 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - AUTO GLASS DR - ELIZABETHTOWN \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ KARGLE-2 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ ELIZABETHTOWN, KY - AUTO GLASS DR -AT AGC Automotive Americas \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 4.56 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 1 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 4/1/2013 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	22.03%
EQUIPMENT / MATERIAL FAILURE	0.00%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	0.00%	TREES	0.00%
NO CAUSE CODE	77.97%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 0.0 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 307.8 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.0 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 2.0 \_\_\_\_\_

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

Review coordination of substation equipment.

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

CIRCUIT #10: \_\_\_\_\_ LOGSDON-2 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ LOGSDON 18 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - HILL ST (NEAR ETHAN CT) - VINE GROVE \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ LOGSDON-2 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ RADCLIFF, KY - ROBERT E. CT / REBA CT \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 0.50 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 24 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 3/1/2014 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	0.00%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	0.00%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	100.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 0.0 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 79.2 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.0 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.0 \_\_\_\_\_

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

Nolin RECC to work with EKPC to review remedies for transmission/substation reliability issues.

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

CIRCUIT #11: \_\_\_\_\_ LOGSDON-3 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ LOGSDON 18 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - HILL ST (NEAR ETHAN CT) - VINE GROVE \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ LOGSDON-3 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ RADCLIFF, KY -W. CROCUS DR / ELM RD / N LOGSDON PKWY \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 15.20 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 1018 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 10/1/2013 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	5.10%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	6.41%	TREES	49.56%
NO CAUSE CODE	13.25%	WIND, HIGH WIND	17.48%
POWER SUPPLIER	8.21%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 5.54 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 83.5 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.07 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.07 \_\_\_\_\_

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

Review ROW conditions and vegetation management cycle.

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

CIRCUIT #12: \_\_\_\_\_ LOGSDON-4 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ LOGSDON 18 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - HILL ST (NEAR ETHAN CT) - VINE GROVE \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ LOGSDON-4 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ RADCLIFF, KY - VINELAND CENTER DR / , HILL ST / , MANLEY AVE / AIRPORT RD \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 8.87 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 389 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 6/1/2014 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	42.61%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	0.00%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	57.39%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 42.8 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 79.35 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.24 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.0 \_\_\_\_\_

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

Nolin RECC to work with EKPC to review remedies for transmission/substation reliability issues. Equipment inspection will identify other areas for correction.

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

CIRCUIT #13: \_\_\_\_\_ LOGSDON-5 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ LOGSDON 18 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - HILL ST (NEAR ETHAN CT) - VINE GROVE \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ LOGSDON-5 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ RADCLIFF, KY - W. VINE ST./ S. LOGSDON PKWY \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 7.51 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 529 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 6/1/2014 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	32.76%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	21.72%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	45.52%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 4.85 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 88.0 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.08 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.16 \_\_\_\_\_

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

Review overvoltage protection. Nolin RECC to work with EKPC to review remedies for transmission/substation reliability issues.

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

CIRCUIT #14: \_\_\_\_\_ MAGNOLIA-1 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ MAGNOLIA 5 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ LARUE - NEW JACKSON HWY - MAGNOLIA \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ MAGNOLIA-1 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ MAGNOLIA, KY- JE JONES RD, MT SHERMAN, BAILEY X-ROADS, MT TABOR RD, HWY 210, HWY 61. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 108.65 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 1007 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 7/17/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	13.99%
EQUIPMENT / MATERIAL FAILURE	28.90%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	44.11%	TREES	13.01%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 150.32 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 167.25 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 1.29 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.25 \_\_\_\_\_

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

Review overvoltage protection and sectionalizing on feeder.

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

CIRCUIT #15: \_\_\_\_\_ MAGNOLIA-3 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ MAGNOLIA 5 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ LARUE - NEW JACKSON HWY - MAGNOLIA \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ MAGNOLIA-3 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ MAGNOLIA, KY - PARKER GROVE RD, JENKINS RD, WONDERLAND RD, UPTON RD, HWY 224, TALLEY OAK HILL RD. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 56.82 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 414 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 11/1/2014 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	3.51%	PUBLIC ACCIDENTS, OTHER	28.60%
EQUIPMENT / MATERIAL FAILURE	41.74%	SMALL ANIMALS OR BIRDS	1.49%
LIGHTNING	24.66%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 104.78 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 640.44 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 1.22 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 2.03 \_\_\_\_\_

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

Schedule feeder inspection to identify equipment for replacment. Identify new surge arrestor placement opportunities.

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

CIRCUIT #16: \_\_\_\_\_ MAGNOLIA-4 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ MAGNOLIA 5 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ LARUE - NEW JACKSON HWY - MAGNOLIA \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ MAGNOLIA-4 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ TANNER, KY - OAK HILL RD TO BRASHEARS RD, NEW JACKSON HWY NORTH OF SUBSTATION, HAWKINS RD, SONORA RD, SIBERIA RD, MURRIELTOWN RD. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 78.39 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 504 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 12/1/2014 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	8.27%
EQUIPMENT / MATERIAL FAILURE	39.38%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	43.13%	TREES	6.59%
NO CAUSE CODE	2.64%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 43.21 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 53.6 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.62 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.11 \_\_\_\_\_

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

Feeder inspection to identify equipment for maintenance and lightning arrestor placement.

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

CIRCUIT #17: \_\_\_\_\_ RADCLIFF-2 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ RADCLIFF 10 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - HILL ST (NEAR W. LINCOLN TRAIL BLVD) - RADCLIFF \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ RADCLIFF-2 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ VINE GROVE, KY - KNOX AVE, WEST SIDE OF SAFARI TRL, RED HILL RD TO GERONIMO CIR, DITTO LN. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 22.06 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 429 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 12/1/2014 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	46.24%	SMALL ANIMALS OR BIRDS	10.24%
LIGHTNING	20.13%	TREES	0.00%
NO CAUSE CODE	10.43%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	12.96%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 61.16 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 155.11 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.51 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 2.98 \_\_\_\_\_

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

Review overvoltage protection and sectionalizing on feeder.  
Identify need for animal guards.

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

CIRCUIT #18: \_\_\_\_\_ RADCLIFF-3 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ RADCLIFF 10 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - HILL ST (NEAR W. LINCOLN TRAIL BLVD) - RADCLIFF \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ RADCLIFF-3 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ RADCLIFF, KY - RED HILL RD NORTH OF GERONIMO CIR, HILL ST NORTH OF SUBSTATION, EAST SIDE OF SAFARI TRL, INOVATION WAY, CRESTVIEW, LOGSDON PWKY NORTH OF RED HILL RD. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 20.69 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 1251 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 12/1/2014 \_\_\_\_\_

8. LIST OF OUTAGE(S):		OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):	
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	4.24%
EQUIPMENT / MATERIAL FAILURE	68.16%	SMALL ANIMALS OR BIRDS	8.18%
LIGHTNING	14.39%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	5.04%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 29.5 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 491.22 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.27 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 4.28 \_\_\_\_\_

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

Schedule feeder inspection to identify equipment for replacment.
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SECTION 5: CIRCUIT REPORTING  
(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)  
(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #19: \_\_\_\_\_ RADCLIFF-4 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ RADCLIFF 10 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - HILL ST (NEAR W. LINCOLN TRAIL BLVD) - RADCLIFF \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ RADCLIFF-4 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ RADCLIFF, KY - CONGRESS DR, CATALPA DR, YATES DR, HILLCREST DR SOUTH OF LOGSDON PKWY \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 4.59 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 312 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 9/13/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	60.00%	SMALL ANIMALS OR BIRDS	12.02%
LIGHTNING	13.83%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	14.15%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 52.56 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 149.75 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.56 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 2.02 \_\_\_\_\_

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

Schedule feeder inspection to identify equipment for replacment.

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

CIRCUIT #20: \_\_\_\_\_ RADCLIFF-5 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ RADCLIFF 10 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - HILL ST (NEAR W. LINCOLN TRAIL BLVD) - RADCLIFF \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ RADCLIFF-5 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ RADCLIFF, KY - W LINCOLN TRAIL BLVD, N. LORRAINE ST, S. LORRAINE ST \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 3.82 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 493 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 8/20/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	12.46%
EQUIPMENT / MATERIAL FAILURE	27.00%	SMALL ANIMALS OR BIRDS	18.05%
LIGHTNING	21.25%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	21.25%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 28.52 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 148.44 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.28 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 2.02 \_\_\_\_\_

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

Identify need for animal guards. Feeder inspection to identify equipment for maintenance. Nolin RECC to work with EKPC to review remedies for transmission/substation reliability issues.

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

CIRCUIT #21: \_\_\_\_\_ RINEYVILLE-3 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ RINEYVILLE 21 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - OWSLEY RD - RINEYVILLE \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ RINEYVILLE-3 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ RINEYVILLE, KY - BERRYTOWN RD, RINEYVILLE BIG SPRINGS RD, RINEYVILLE SCHOOL RD. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 20.43 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 454 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 9/13/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	22.73%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	40.91%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	12.73%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	23.64%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 0.41 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 4.86 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.01 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 0.07 \_\_\_\_\_

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

SAIDI and SAIFI drastically below system average. No corrective actions recommended.

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

CIRCUIT #22: \_\_\_\_\_ RINEYVILLE-4 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ RINEYVILLE 21 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - OWSLEY RD - RINEYVILLE \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ RINEYVILLE-4 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ RINEYVILLE, KY - BERRYTOWN RD./ BLUE BALL RD., SALT RIVER RD. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 50.92 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 390 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 7/25/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	7.67%
EQUIPMENT / MATERIAL FAILURE	43.62%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	33.16%	TREES	4.85%
NO CAUSE CODE	10.70%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 41.07 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 289.43 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.68 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.31 \_\_\_\_\_

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

Schedule feeder inspection to identify equipment for replacment. Identify new surge arrestor placement opportunities.

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

CIRCUIT #23: \_\_\_\_\_ RINEYVILLE-5 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ RINEYVILLE 21 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - OWSLEY RD - RINEYVILLE \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ RINEYVILLE-5 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ RINEVILLE, KY - OWSLEY RD, RINEYVILLE RD, HARGAN RD, PICKERELL LN, BENNET RD, BLACKBURN RD \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 29.05 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 504 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 9/13/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	1.69%
EQUIPMENT / MATERIAL FAILURE	16.54%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	18.42%	TREES	32.26%
NO CAUSE CODE	31.09%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 55.24 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 39.95 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.3 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 0.32 \_\_\_\_\_

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

SAIDI and SAIFI drastically below system average. No corrective actions recommended.

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

CIRCUIT #24: \_\_\_\_\_ SMITHERSVILLE 1-3 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ SMITHERSVILLE 1 13 \_\_\_\_\_  
 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN -S. WILSON & W.A. JENKINS RD. - E-TOWN \_\_\_\_\_  
 3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ SMITHERSVILLE 1-3 \_\_\_\_\_  
 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ RINEYVILLE, KY - HWY 447/ DECKARD SCHOOL RD. \_\_\_\_\_  
 5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 28.99 \_\_\_\_\_  
 6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 831 \_\_\_\_\_  
 7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 2/12/2013 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	25.91%
EQUIPMENT / MATERIAL FAILURE	30.74%	SMALL ANIMALS OR BIRDS	14.12%
LIGHTNING	0.00%	TREES	23.40%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	5.83%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 19.07 \_\_\_\_\_  
 10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 265.74 \_\_\_\_\_  
 11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.51 \_\_\_\_\_  
 12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 2.03 \_\_\_\_\_

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

Identify need for animal guards. Feeder inspection to identify equipment for maintenance.

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

CIRCUIT #25: \_\_\_\_\_ SMITHERSVILLE 1-4 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ SMITHERSVILLE 1 13 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN -S. WILSON & W.A. JENKINS RD. - E-TOWN \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ SMITHERSVILLE 1-4 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ RINEYVILLE, KY - WILSON RD./ BOONE RD./ HUTCHERON RD. \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 24.09 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 926 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 2/1/2013 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	22.10%
EQUIPMENT / MATERIAL FAILURE	47.91%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	10.75%	TREES	0.00%
NO CAUSE CODE	8.12%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	11.11%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 83.64 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 91.9 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.91 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.49 \_\_\_\_\_

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

Power Supplier caused a portion of outages. Equipment inspection will identify other areas for correction. Nolin RECC to work with EKPC to review remedies for transmission/substation reliability issues.

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

CIRCUIT #26: SMITHERSVILLE 2-3

1. SUBSTATION NAME AND NUMBER: SMITHERSVILLE 2 17  
 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): HARDIN -S. WILSON & W.A. JENKINS RD. - E-TOWN  
 3. CIRCUIT NAME AND NUMBER: SMITHERSVILLE 2-3  
 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): RINEYVILLE, KY - W.A. JENKINS RD./ DIXIE HWY/ TERESA RD.  
 5. TOTAL CIRCUIT LENGTH (MILES): 15.11  
 6. CUSTOMER COUNT FOR THIS CIRCUIT: 649  
 7. DATE OF LAST CIRCUIT TRIM (VM): 4/11/2012

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	<u>0.00%</u>	PUBLIC ACCIDENTS, OTHER	<u>7.17%</u>
EQUIPMENT / MATERIAL FAILURE	<u>8.09%</u>	SMALL ANIMALS OR BIRDS	<u>0.00%</u>
LIGHTNING	<u>25.07%</u>	TREES	<u>58.13%</u>
NO CAUSE CODE	<u>1.53%</u>	WIND, HIGH WIND	<u>0.00%</u>
POWER SUPPLIER	<u>0.00%</u>		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): 10.89  
 10. REPORTING YEAR (SAIDI): 283.51  
 11. CIRCUIT 5 YEAR AVERAGE (SAIFI): 0.3  
 12. REPORTING YEAR (SAIFI): 1.54

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

Identify need for animal guards. Feeder inspection to identify equipment for maintenance and lightning arrestor placement. Tree trimming underway should reduce outages.

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

CIRCUIT #27: SMITHERSVILLE 2-4

1. SUBSTATION NAME AND NUMBER: SMITHERSVILLE 2 17

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): HARDIN -S. WILSON & W.A. JENKINS RD. - E-TOWN

3. CIRCUIT NAME AND NUMBER: SMITHERSVILLE 2-4

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): E-TOWN, KY - S. WILSON RD., PINE VALLEY DR, HUTCHERSON RD., N. DIXIE AVE., BEWLEY HOLLOW RD. TO MAFFET CEM.

5. TOTAL CIRCUIT LENGTH (MILES): 22.83

6. CUSTOMER COUNT FOR THIS CIRCUIT: 1019

7. DATE OF LAST CIRCUIT TRIM (VM): 4/11/2012

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	<u>0.00%</u>	PUBLIC ACCIDENTS, OTHER	<u>14.79%</u>
EQUIPMENT / MATERIAL FAILURE	<u>7.05%</u>	SMALL ANIMALS OR BIRDS	<u>0.00%</u>
LIGHTNING	<u>21.11%</u>	TREES	<u>43.52%</u>
NO CAUSE CODE	<u>13.53%</u>	WIND, HIGH WIND	<u>0.00%</u>
POWER SUPPLIER	<u>0.00%</u>		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): 115.85

10. REPORTING YEAR (SAIDI): 206.89

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): 1.09

12. REPORTING YEAR (SAIFI): 2.43

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

Review Vegetation Management cycle

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

CIRCUIT #28: \_\_\_\_\_ STEPHENSBURG-1 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ STEPHENSBURG 6 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN-LEITCHFIELD RD-STEPHENSBURG \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ STEPHENSBURG-1 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ GLENDALE, KY - STAR MILLS EASTVIEW RD, BACON CREEK RD, HWY 222, CECILIA SMITH MILL RD, PARTRIDGE WAY. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 41.49 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 401 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 4/11/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	6.45%
EQUIPMENT / MATERIAL FAILURE	25.29%	SMALL ANIMALS OR BIRDS	13.25%
LIGHTNING	55.01%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 46.42 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 67.06 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 1.05 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 0.27 \_\_\_\_\_

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

Review overvoltage protection.

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

CIRCUIT #29: \_\_\_\_\_ STEPHENSBURG-2 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ STEPHENSBURG 6 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN-LEITCHFIELD RD-STEPHENSBURG \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ STEPHENSBURG-2 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ WHITE HILLS, KY - SONORA HARDIN SPRINGS RD. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 46.40 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 262 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 4/1/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	40.62%
EQUIPMENT / MATERIAL FAILURE	28.43%	SMALL ANIMALS OR BIRDS	7.09%
LIGHTNING	15.90%	TREES	0.00%
NO CAUSE CODE	7.95%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 64.78 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 50.52 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 1.09 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.21 \_\_\_\_\_

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

Identify need for animal guards. Feeder inspection to identify equipment for maintenance and lightning arrestor placement.

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

CIRCUIT #30: \_\_\_\_\_ STEPHENSBURG-4 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ STEPHENSBURG 6 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN-LEITCHFIELD RD-STEPHENSBURG \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ STEPHENSBURG-4 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ EASTVIEW, KY - SONORA HARDIN SPRINGS RD./ EASTVIEW RD. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 75.41 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 586 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 2/1/2015 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	25.52%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	4.82%	TREES	48.65%
NO CAUSE CODE	3.52%	WIND, HIGH WIND	17.49%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 48.74 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 68.08 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.85 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 0.53 \_\_\_\_\_

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

Identify need for animal guards. Feeder inspection to identify equipment for maintenance and lightning arrestor placement. Tree trimming underway should reduce outages.

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

CIRCUIT #31: \_\_\_\_\_ STEPHENSBURG-5 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ STEPHENSBURG 6 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN-LEITCHFIELD RD-STEPHENSBURG \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ STEPHENSBURG-5 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ STEPHENSBURG, KY - EASTVIEW RD./ NACKE PIKE RD. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 72.06 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 614 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 1/1/2015 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	6.14%
EQUIPMENT / MATERIAL FAILURE	12.34%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	72.43%	TREES	0.00%
NO CAUSE CODE	9.09%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 40.06 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 58.17 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.6 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 0.6 \_\_\_\_\_

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

Review overvoltage protection on feeder.

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

CIRCUIT #32: \_\_\_\_\_ THARP-3 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ THARP 12 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - ST. JOHN RD. - ETOWN \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ THARP-3 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ ELIZABETHTOWN, KY - SAINT JOHN RD./ RING RD. \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 2.94 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 12 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 8/1/2013 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	63.24%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	36.76%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 15.98 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 70.8 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.61 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.0 \_\_\_\_\_

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

Schedule feeder inspection to identify equipment for replacment.

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

CIRCUIT #33: \_\_\_\_\_ THARP-4 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ THARP 12 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - ST. JOHN RD. - ETOWN \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ THARP-4 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ ELIZABETHTOWN, KY - SAINT JOHN RD./ THOMAS RD. \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 35.73 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 556 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 4/1/2015 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	12.66%
EQUIPMENT / MATERIAL FAILURE	9.99%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	34.55%	TREES	0.00%
NO CAUSE CODE	30.72%	WIND, HIGH WIND	12.07%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 18.21 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 91.92 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.51 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 2.2 \_\_\_\_\_

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

Schedule feeder inspection to identify equipment for replacment. Identify new surge arrestor placement opportunities.

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

CIRCUIT #34: \_\_\_\_\_ THARP-5 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ THARP 12 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - ST. JOHN RD. - ETOWN \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ THARP-5 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ ELIZABETHTOWN, KY - SAINT JOHN RD./ RING RD./ WEST PARK RD. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 1.73 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 9 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 12/1/2013 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	50.63%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	29.87%	TREES	0.00%
NO CAUSE CODE	4.30%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	15.19%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 25.8 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 169.13 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 1.0 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 8.11 \_\_\_\_\_

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

Power Supplier caused a portion of outages. Equipment inspection will identify other areas for correction. Nolin RECC to work with EKPC to review remedies for transmission/substation reliability issues.

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

CIRCUIT #35: \_\_\_\_\_ THARP-2-2 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ THARP-2 22 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - ST. JOHN RD. - ETOWN \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ THARP-2-2 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ ELIZABETHTOWN, KY - SAINT JOHN RD./ KING ARTHUR RD. \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 35.74 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 553 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 7/25/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	9.96%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	76.28%	TREES	0.00%
NO CAUSE CODE	13.76%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 42.21 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 159.08 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 1.0 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.99 \_\_\_\_\_

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

Review overvoltage protection and sectionalizing on feeder.

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

CIRCUIT #36: \_\_\_\_\_ THARP-2-3 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ THARP-2 22 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - ST. JOHN RD. - ETOWN \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ THARP-2-3 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ ELIZABETHTOWN, KY - SAINT JOHN RD./ RING RD./ WEST PARK RD. \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 1.01 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 1 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 9/13/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	0.00%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	100.00%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 19.6 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 73.2 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.67 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.0 \_\_\_\_\_

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

Review overvoltage protection and sectionalizing on feeder.

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

CIRCUIT #37: \_\_\_\_\_ THARP-2-4 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ THARP-2 22 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - ST. JOHN RD. - ETOWN \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ THARP-2-4 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ ELIZABETHTOWN, KY - SAINT JOHN RD./ WILMOTH RD./ LANGLEY TRACE/ CHARLEMAGNE BLVD. \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 3.48 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 120 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 7/25/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	0.00%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	100.00%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 70.94 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 73.2 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 1.08 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.0 \_\_\_\_\_

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

Review overvoltage protection and sectionalizing on feeder.

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

CIRCUIT #38: \_\_\_\_\_ TUNNEL HILL 1-2 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ TUNNEL HILL 1 11 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - TUNNEL HILL RD. - E-TOWN \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ TUNNEL HILL 1-2 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ ETOWN, KY - TUNNEL HILL RD, RING RD, BON AIRE DR \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 8.13 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 716 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 4/1/2013 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	0.00%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	71.66%	TREES	28.34%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 8.77 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 19.44 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.23 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 0.11 \_\_\_\_\_

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

Review overvoltage protection.

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

CIRCUIT #39: \_\_\_\_\_ TUNNEL HILL 2-2 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ TUNNEL HILL 2 19 \_\_\_\_\_  
 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - TUNNEL HILL RD. - E-TOWN \_\_\_\_\_  
 3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ TUNNEL HILL 2-2 \_\_\_\_\_  
 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ ETOWN, KY - TUNNEL HILL RD, N. MILES ST. TO COLONIAL DR. \_\_\_\_\_  
 5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 10.19 \_\_\_\_\_  
 6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 500 \_\_\_\_\_  
 7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 8/1/2013 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	8.34%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	80.51%	TREES	11.15%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 10.87 \_\_\_\_\_  
 10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 23.35 \_\_\_\_\_  
 11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.37 \_\_\_\_\_  
 12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 0.26 \_\_\_\_\_

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

Review overvoltage protection.

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

CIRCUIT #40: \_\_\_\_\_ TUNNEL HILL 2-3 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ TUNNEL HILL 2 19 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - TUNNEL HILL RD. - E-TOWN \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ TUNNEL HILL 2-3 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ ETOWN, KY - TUNNEL HILL CHURCH RD./ SAINT JOHN RD. \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 70.85 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 1076 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 2/12/2013 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	25.76%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	46.36%	TREES	12.61%
NO CAUSE CODE	15.26%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 11.09 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 491.18 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.11 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 2.3 \_\_\_\_\_

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

Schedule feeder inspection to identify equipment for replacment. Identify new surge arrestor placement opportunities.

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

CIRCUIT #41: \_\_\_\_\_ TUNNEL HILL 2-4 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ TUNNEL HILL 2 19 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - TUNNEL HILL RD. - E-TOWN \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ TUNNEL HILL 2-4 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ ETOWN, KY - OLD TUNNEL HILL RD, WOODEN LN, FELIX CT, TUNNEL HILL RD, BLUE GRASS RD \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 15.73 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 564 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 2/1/2013 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	8.38%	SMALL ANIMALS OR BIRDS	10.95%
LIGHTNING	76.10%	TREES	4.57%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 44.85 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 87.76 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.39 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 0.36 \_\_\_\_\_

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

Review overvoltage protection.

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

CIRCUIT #42: \_\_\_\_\_ UPTON-5 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ UPTON 7 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - MILERSTOWN RD. - UPTON \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ UPTON-5 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ UPTON, KY - LUCAS GROVE RD, FLINT HILL RD, HOGAN RD, LEE SCHOOL RD \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 43.39 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 279 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 9/1/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	7.80%
EQUIPMENT / MATERIAL FAILURE	11.67%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	74.82%	TREES	0.00%
NO CAUSE CODE	5.71%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	0.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 42.79 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 48.39 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.75 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 0.16 \_\_\_\_\_

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

Review overvoltage protection.

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

CIRCUIT #43: \_\_\_\_\_ VERTREES-1 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ VERTREES 8 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - SALT RIVER RD. - VERTREES \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ VERTREES-1 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ VERTREES, KY - HARDINSBURG RD./ CONSTANTINE RD. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 46.02 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 343 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 4/11/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	8.62%
EQUIPMENT / MATERIAL FAILURE	7.97%	SMALL ANIMALS OR BIRDS	9.59%
LIGHTNING	0.00%	TREES	12.12%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	61.70%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 27.45 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 568.22 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.56 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.27 \_\_\_\_\_

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

Nolin RECC to work with EKPC to review remedies for transmission/substation reliability issues.

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

CIRCUIT #44: \_\_\_\_\_ VERTREES-2 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ VERTREES 8 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - SALT RIVER RD. - VERTREES \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ VERTREES-2 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ VERTREES, KY - SALT RIVER RD./ SAINT JOHN RD. \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 60.06 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 458 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 4/11/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	6.71%
EQUIPMENT / MATERIAL FAILURE	21.48%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	33.23%	TREES	4.14%
NO CAUSE CODE	4.39%	WIND, HIGH WIND	6.44%
POWER SUPPLIER	23.61%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 58.21 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 574.77 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.73 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.26 \_\_\_\_\_

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

Nolin RECC to work with EKPC to review remedies for transmission/substation reliability issues. Equipment inspection will identify other areas for correction.

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

CIRCUIT #45: \_\_\_\_\_ VERTREES-4 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ VERTREES 8 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - SALT RIVER RD. - VERTREES \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ VERTREES-4 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ VERTREES, KY - HARDINBURG RD./ LONG GROVE RD. \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 41.49 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 500 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 4/11/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	11.63%
EQUIPMENT / MATERIAL FAILURE	30.59%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	10.41%	TREES	3.58%
NO CAUSE CODE	3.67%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	40.12%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 30.24 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 545.58 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.47 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 0.99 \_\_\_\_\_

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

Nolin RECC to work with EKPC to review remedies for transmission/substation reliability issues. Equipment inspection will identify other areas for correction.

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

CIRCUIT #46: \_\_\_\_\_ VERTREES-5 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ VERTREES 8 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - SALT RIVER RD. - VERTREES \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ VERTREES-5 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ EAST VIEW, KY - SALT RIVER RD., LAUREL RIDGE RD., SONORA HARDIN SPRINGS RD., RIDGE TOP LN. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 70.72 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 483 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 4/1/2012 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	11.95%
EQUIPMENT / MATERIAL FAILURE	33.22%	SMALL ANIMALS OR BIRDS	2.95%
LIGHTNING	24.72%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	4.15%
POWER SUPPLIER	23.01%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 58.32 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 565.02 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 1.0 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.18 \_\_\_\_\_

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

Nolin RECC to work with EKPC to review remedies for transmission/substation reliability issues. Equipment inspection will identify other areas for correction.

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

CIRCUIT #47: \_\_\_\_\_ VINE GROVE-1 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ VINE GROVE 9 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - ROGERSVILLE RD. - VINE GROVE \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ VINE GROVE-1 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ VINE GROVE, KY - ROGERSVILLE RD., CRUME RD., DUGGIN SWITCH RD., SAINT ANDREWS DR., FORT AVE. \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 25.1 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 536 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 5/1/2013 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	15.26%
EQUIPMENT / MATERIAL FAILURE	16.60%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	42.22%	TREES	0.00%
NO CAUSE CODE	7.74%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	18.17%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 116.26 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 246.84 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.87 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 5.02 \_\_\_\_\_

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

Review overvoltage protection and sectionalizing on feeder.  
 Nolin RECC to work with EKPC to review remedies for  
 transmission/substation reliability issues.

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

CIRCUIT #48: \_\_\_\_\_ VINE GROVE-2 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ VINE GROVE 9 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - ROGERSVILLE RD. - VINE GROVE \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ VINE GROVE-2 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ VINE GROVE, KY - TO HWY 313 & COMMERCE DR \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 2.62 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 93 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 2/1/2015 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	1.46%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	41.48%	SMALL ANIMALS OR BIRDS	5.46%
LIGHTNING	16.16%	TREES	18.34%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	17.10%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 180.88 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 238.52 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 1.61 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 3.29 \_\_\_\_\_

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

Review sectionalizing on feeder to minimize number of customers impacted by equipment operations. Nolin RECC to work with EKPC to review remedies for transmission/substation reliability issues.

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

CIRCUIT #49: \_\_\_\_\_ VINE GROVE-3 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ VINE GROVE 9 \_\_\_\_\_  
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - ROGERSVILLE RD. - RADCLIFF \_\_\_\_\_  
3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ VINE GROVE-3 \_\_\_\_\_  
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ VINE GROVE, KY - ROGERSVILLE RD.,S. LOGSDON PKWY., PEARMAN AVE, S. & N. WOODLAND DR. \_\_\_\_\_  
5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 12.85 \_\_\_\_\_  
6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 746 \_\_\_\_\_  
7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 1/1/2015 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	14.77%
EQUIPMENT / MATERIAL FAILURE	29.73%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	19.31%	TREES	13.32%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	22.88%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 87.36 \_\_\_\_\_  
10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 293.88 \_\_\_\_\_  
11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.68 \_\_\_\_\_  
12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 3.01 \_\_\_\_\_

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

Nolin RECC to work with EKPC to review remedies for transmission/substation reliability issues. Equipment inspection will identify other areas for correction.

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

CIRCUIT #50: \_\_\_\_\_ VINE GROVE-6 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ VINE GROVE 9 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - ROGERSVILLE RD. - RADCLIFF \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ VINE GROVE-6 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ VINE GROVE, KY - JOE PRATHER HWY., WINTERGREEN DR., S. DIXIE BLVD \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 7.19 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 324 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 8/1/2013 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	0.00%	PUBLIC ACCIDENTS, OTHER	32.04%
EQUIPMENT / MATERIAL FAILURE	0.00%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	0.00%	TREES	0.00%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	67.96%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 162.98 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 144.42 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 1.47 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 2.13 \_\_\_\_\_

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

Nolin RECC to work with EKPC to review remedies for transmission/substation reliability issues.

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

CIRCUIT #51: \_\_\_\_\_ VINE GROVE-7 \_\_\_\_\_

1. SUBSTATION NAME AND NUMBER: \_\_\_\_\_ VINE GROVE 9 \_\_\_\_\_

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): \_\_\_\_\_ HARDIN - ROGERSVILLE RD. - VINE GROVE \_\_\_\_\_

3. CIRCUIT NAME AND NUMBER: \_\_\_\_\_ VINE GROVE-7 \_\_\_\_\_

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): \_\_\_\_\_ VINE GROVE, KY - DECKARD SCHOOL RD TO COUNTRY LN, BURNS RD, DUGGIN SWITCH RD, VILLA RAY DR \_\_\_\_\_

5. TOTAL CIRCUIT LENGTH (MILES): \_\_\_\_\_ 16.05 \_\_\_\_\_

6. CUSTOMER COUNT FOR THIS CIRCUIT: \_\_\_\_\_ 289 \_\_\_\_\_

7. DATE OF LAST CIRCUIT TRIM (VM): \_\_\_\_\_ 4/1/2015 \_\_\_\_\_

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	18.26%	PUBLIC ACCIDENTS, OTHER	0.00%
EQUIPMENT / MATERIAL FAILURE	0.00%	SMALL ANIMALS OR BIRDS	0.00%
LIGHTNING	45.32%	TREES	24.42%
NO CAUSE CODE	0.00%	WIND, HIGH WIND	0.00%
POWER SUPPLIER	12.00%		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): \_\_\_\_\_ 108.75 \_\_\_\_\_

10. REPORTING YEAR (SAIDI): \_\_\_\_\_ 144.59 \_\_\_\_\_

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): \_\_\_\_\_ 0.87 \_\_\_\_\_

12. REPORTING YEAR (SAIFI): \_\_\_\_\_ 1.98 \_\_\_\_\_

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

Review lightning arrestor placement. Circuit trimmed in 2015 which should reduce tree related outages.

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

CIRCUIT #52: WILLIAMS-3

1. SUBSTATION NAME AND NUMBER: WILLIAMS 16

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN): HARDIN - BARDSTOWN RD. - E-TOWN

3. CIRCUIT NAME AND NUMBER: WILLIAMS-3

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): ELIZABETHTOWN, KY - SPRINGFIELD RD, LOCUST GROVE RD, MIDDLE CREEK RD, FORD HWY, VALLEY CREEK RD, MILLER RD, HILLCREEK DR, BARDSTOWN RD

5. TOTAL CIRCUIT LENGTH (MILES): 71.13

6. CUSTOMER COUNT FOR THIS CIRCUIT: 1138

7. DATE OF LAST CIRCUIT TRIM (VM): 12/1/2013

8. LIST OF OUTAGE(S):	OUTAGE MINUTES (% OF TOTAL OUTAGE MINUTES):		
CONTRACTOR	<u>0.00%</u>	PUBLIC ACCIDENTS, OTHER	<u>19.72%</u>
EQUIPMENT / MATERIAL FAILURE	<u>14.79%</u>	SMALL ANIMALS OR BIRDS	<u>0.13%</u>
LIGHTNING	<u>22.58%</u>	TREES	<u>42.77%</u>
NO CAUSE CODE	<u>0.00%</u>	WIND, HIGH WIND	<u>0.00%</u>
POWER SUPPLIER	<u>0.00%</u>		

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): 53.46

10. REPORTING YEAR (SAIDI): 78.92

11. CIRCUIT 5 YEAR AVERAGE (SAIFI): 0.37

12. REPORTING YEAR (SAIFI): 2.12

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

Feeder inspection to identify equipment for maintenance and lightning arrestor placement. Review Vegetation Management cycle.

SECTION 6: VEGETATION MANAGEMENT PLAN REVIEW  
INCLUDE CURRENT VEGETATION MANAGEMENT PLAN

See attached "Vegetation Management Program 2-18-11 Nolin.docx".

SECTION 7: UTILITY COMMENTS

# **NOLIN RURAL ELECTRIC COOPERATIVE CORPORATION'S VEGETATION MANAGEMENT PROGRAM**

**Purpose is to improve the reliability of the electric distribution systems by preventing outages from vegetation located on distribution rights-of-way and minimizing outages from vegetation located adjacent to rights-of-way, maintaining clearances between distribution lines and vegetation on and along distribution rights-of-ways.**

# Vegetation Management Program

## Definitions of Terms Used in Standard

This section includes newly defined or revised terms used in this standard. New or revised definitions, listed below, become approved when the standard is placed in operation. When the standard becomes effective, these defined terms will be removed from the individual standard and added to the Glossary.

**Fire Risk:** The likelihood that a fire will ignite or spread in a particular geographic area.

**Flashover:** An electrical discharge through air around or over the surface of insulation, between objects of different potential, caused by placing a voltage across the air space that results in the ionization of the air space.

**IEEE:** Institute of Electrical and Electronics Engineers, Inc.

**Vegetation Inspection:** The systematic examination of a distribution corridor to document vegetation conditions.

**Operating Voltage:** The voltage level by which an electrical system is designated and to which certain operating characteristics of the system are related; also, the effective (root-mean-square) potential difference between any two conductors or between a conductor and the ground. The actual voltage of the circuit may vary somewhat above or below this value.

**Rated Electrical Operating Conditions:** The specified or reasonably anticipated conditions under which the electrical system or an individual electrical circuit is intend/signed to operate.

**Right-of-Way (ROW):** A corridor of land on which electric lines may be located. The distribution owner may own the land in fee, own an easement, or have certain franchise, prescription, or license rights to construct and maintain lines.

**Sustained Outage:** The de-energized condition of a distribution line resulting from a fault or disturbance following an unsuccessful automatic reclosing sequence and/or unsuccessful manual reclosing procedure.

**Distribution Line:** A system of structures, wires, insulators and associated hardware that carry electric energy from one point to another in an electric power system. Lines are operated at relatively high voltages varying from 120 V up to 7.2 kV, and are capable of transmitting quantities of electricity over long distances.

**Vegetation:** All plant material, growing or not, living or dead.

# Introduction

## **Purpose:**

To improve the reliability of the electric distribution systems by preventing outages from vegetation located on distribution rights-of-way (ROW) and minimizing outages from vegetation located adjacent to ROW, maintaining clearances between distribution lines and vegetation on and along distribution ROW.

This standard is developed for all distribution lines operated at 7.2 kV and to any lower voltage lines designated by the Nolin Rural Electric Cooperative Corporation (RECC) as critical to the reliability of the electric system in the region.

## **Requirements:**

- 1) Nolin RECC will periodically review, and keep current, the formal distribution vegetation management program. The review will include the evaluation of objectives, practices, approved procedures, work specifications, and evaluation of SAIDI, SAIFI, CAIDI, and CAIFI. The outage management system (OMS) will collect information from the automated meter reading (AMR) system, supervisory control and data acquisition (SCADA) and input from the on-duty dispatcher for evaluation.
- 2) The plan defines a schedule for ROW vegetation inspections. This schedule will be flexible enough to adjust for changing conditions. The inspection schedule is based on the anticipated growth of vegetation and any other environmental or operational factors that could impact the relationship of vegetation to the Nolin RECC's distribution lines.
- 3) Encourage public outreach to educate the public, in general, about the use and acceptance of vegetation management on rights-of-way.
- 4) Nolin RECC will, during initial installation, identify clearances between vegetation and any overhead, ungrounded supply conductors, taking into consideration the line voltage, the effects of ambient temperature on conductor sag under maximum design loading, the configuration and insulated value of the line, and the effects of wind velocities on conductor sway. Specifically, Nolin RECC will establish clearances to be achieved at the time of vegetation management work to maintain a set of clearances identified to prevent flashover between vegetation and overhead-ungrounded supply conductors. Nolin RECC shall determine appropriate clearance distances to be achieved at the time of distribution vegetation management work based upon: operating voltage, appropriate vegetation management techniques, fire risk, reasonably anticipated tree and conductor movement, species types and growth rates, species failure characteristics, local climate and rainfall patterns, line terrain and elevation, location of the vegetation within the span, and worker approach distance requirements.

- 5) Nolin RECC will determine specific radial clearances to be maintained between vegetation and conductors under all rated electrical operating conditions. These minimum clearance distances are necessary to prevent flashover between vegetation and conductors and may vary due to such factors as has been stated. Nolin RECC shall develop mitigation measures to achieve sufficient clearances for the protection of the distribution facilities when it identifies locations on the ROW where it is restricted from attaining the clearances specified in this Requirement.
- 6) All personnel directly involved in the design and implementation of the Vegetation Management Program shall hold appropriate qualifications and training, as defined by Nolin RECC, to perform their duties.
- 7) Nolin RECC shall establish a process for the communication of vegetation conditions that present an imminent threat of an outage to a distribution line. This is so action may be taken (temporary reduction in line's consumers, switching line out of service, etc.) until the threat is relieved.
- 8) Nolin RECC shall create and implement an annual plan for vegetation management work to ensure the reliability of the system. The plan shall describe the methods used, such as manual clearing, mechanical clearing, herbicide treatment, or other actions. The plan should be flexible enough to adjust to changing conditions, taking into consideration the anticipated growth of vegetation and other environmental factors that may have an impact on the reliability of the distribution systems. Adjustments to the plan shall be documented as they occur. The plan should take into consideration the time required to obtain permissions or permits from landowners or regulatory authorities. Each procedure for documenting and tracking the planned vegetation management work and ensuring that the vegetation management work was completed according to work specifications.

## Compliance to the Requirements

1. The overall 'Vegetation Management Plan' will be evaluated annually to establish the progress of the plans' past year improvement against prior years. The comparison will include outage data of specific feeders, overall system outages, record keeping process of outage tickets, time response to outage lengths, comparison of funds to lines lengths and type of work done, and AMR's blink reports. Each year the progress of the plan will be evaluated; deviations, deficiencies or improvements will be made for the following year, and work procedures will be considered.
2. The inspection and right of clearing schedule will be 3 years in dense housing areas (approximately 14 consumers per mile), fast growing tree (locust, sycamore etc.) areas and in areas where trimming maybe limited (historic sites, national forest, and sensitive environmental areas). Other areas will be on the normal 5-year cycle.
3. An article describing the need for right of way maintenance, safety issues associated with live electric lines and trees, and proper tree selection for planting near electric lines will be mailed to all consumer's service address.
4. During System inspection, employees working on existing facilities will make calls to the dispatcher about tree trimming or removal of trouble areas that may not comply with the RUS standard that is set forth in M1.30G "Right of way clearing guide" and standards set by the National Electrical Safety Code in Section 23. If no imminent danger exists, the dispatcher will generate a Work Order Ticket for the correction of the problem.
5. Staking sheets will have notes associated for tree trimming or removal with dimensions from the centerline of the line construction. The notes will remain with the staking sheets throughout the construction phase and final inspection of the jobs. The dimensions will comply with the RUS standard that is set forth in M1.30G "*Right of way clearing guide*" and standards set in the National Electrical Safety Code in Section 23.
6. Employees will have annual training on the RUS standards and National Electrical Safety Code relating to line construction and safety issues.
7. The dispatcher will be available 24 hours a day to take calls, make work order tickets, and dispatch employees for imminent danger of hazards to the public.
8. An overall system map will be color coded for work to be done each year. The map will be a base for planning and an estimate for budget numbers. The cost of various methods right of way control will be used as the land and environment dictate. Each year, during the planning period, an evaluation of outages and outages data will be used to set an estimated budget number. During the Budget planning, a dollar figure will be set aside for the various methods of right of way control. The areas, as budget permits, will be designated as to method and length of lines to be done.