

# KENTUCKY PUBLIC SERVICE COMMISSION

## Electric Distribution Utility Annual Reliability Report

### SECTION 1: CONTACT INFORMATION

UTILITY NAME	Cumberland Valley Electric
REPORT PREPARED BY	Ben Liford
E-MAIL ADDRESS OF PREPARER	Bliford@cv.coop
PHONE NUMBER OF PREPARER	(606) 627-2673

### SECTION 2: REPORTING YEAR

CALENDAR YEAR OF REPORT	2025
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### SECTION 3: MAJOR EVENT DAYS (MED)

$T_{MED}$	52.7579
FIRST DATE USED TO DETERMINE $T_{MED}$	1/1/2021
LAST DATE USED TO DETERMINE $T_{MED}$	12/31/2025
NUMBER OF MED IN REPORT YEAR	4

NOTE: Per IEEE 1366  $T_{MED}$  should be calculated using the daily SAIDI values for the five prior years. If five years of data are not available, then utilities should use what is available until five years are accumulated.

### SECTION 4: SYSTEM RELIABILITY INFORMATION AND RESULTS

#### System-wide Information

TOTAL CUSTOMERS	24376	TOTAL CIRCUITS	59
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#### Excluding MED

	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	369.20	SAIDI	431.015
SAIFI	2.84	SAIFI	2.803

#### Including MED

	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	969.6	SAIDI	891.404
SAIFI	4.15	SAIFI	4.21

#### Notes:

- 1) All duration indices (SAIDI) are to be reported in units of minutes.
- 2) Reports are due on the first business day of May of each year
- 3) Reports cover the calendar year ending in the December before the reports are due.
- 4) IEEE 1366 (latest version) is used to define SAIDI, SAIFI, and  $T_{MED}$

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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 #1:**

1. SUBSTATION NAME AND NUMBER

Alex Creek 110

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Knox 1749 Alex Creek Rd Flatlick

3. CIRCUIT NAME AND NUMBER

Stinking Creek 204

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

Stinking Creek

5. TOTAL CIRCUIT LENGTH (MILES)

83

6. CUSTOMER COUNT FOR THIS CIRCUIT

548

7. DATE OF LAST CIRCUIT TRIM (VM)

2019, Currently trimming

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

See exhibit A.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

808.5196

10. REPORTING YEAR (SAIDI)

1427.477

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.1216

12. REPORTING YEAR (SAIFI)

4.4135

13. CORRECTIVE ACTION PLAN

Currently cutting this circuit and making plans to install step transformers for back feed capability.

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

**Cumberland Valley Electric**

**Substation:** Alex Creek    **Feeder:** 204

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	3.59%
110	Scheduled Maintenance	0.62%
13	Bad R/W (includes kudzu)	1.34%
14	Small Animals or Birds	0.04%
2	Tree - on R/W	14.32%
3	Tree - off R/W	3.48%
5	Storm	75.53%
6	Material or Equipment Failure	0.04%
9	Lightning	0.02%
92	Jumper/Hot Line Clamp	0.01%
99	Unknown	1.02%

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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 #2:**

1. SUBSTATION NAME AND NUMBER

Bacon Creek S87

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Whitley Bacon Creek Rd Corbin, KY

3. CIRCUIT NAME AND NUMBER

Hospital Circuit 124

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

Corbin Baptist Health

5. TOTAL CIRCUIT LENGTH (MILES)

12

6. CUSTOMER COUNT FOR THIS CIRCUIT

136

7. DATE OF LAST CIRCUIT TRIM (VM)

2019

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

See Exhibit B.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

38.1944

10. REPORTING YEAR (SAIDI)

190.9719

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.3189

12. REPORTING YEAR (SAIFI)

1.5944

13. CORRECTIVE ACTION PLAN

Line inspection, right of way bush hogging, and replacement of aging equipment.

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

**Cumberland Valley Electric**

**Substation:** Bacon Creek **Feeder:** 124

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	90.05%
14	Small Animals or Birds	6.41%
2	Tree - on R/W	0.79%
6	Material or Equipment Failure	2.76%

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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 #3:**

1. SUBSTATION NAME AND NUMBER

Bledsoe E51

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Harlan 1642 W HWY 221 Bledsoe, KY

3. CIRCUIT NAME AND NUMBER

Stoney Fork 234

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

Stoney Fork

5. TOTAL CIRCUIT LENGTH (MILES)

20

6. CUSTOMER COUNT FOR THIS CIRCUIT

159

7.. DATE OF LAST CIRCUIT TRIM (VM)

2024

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

See exhibit C.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

429.2547

10. REPORTING YEAR (SAIDI)

697.5386

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.5521

12. REPORTING YEAR (SAIFI)

5.9133

13. CORRECTIVE ACTION PLAN

Right of way maintenance, line inspect, replace aging equipment, tap fusing, and system upgrades.

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

**Cumberland Valley Electric**

**Substation: Bledsoe Feeder: 234**

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	76.66%
1	Power Supplier	0.10%
110	Scheduled Maintenance	0.13%
13	Bad R/W (includes kudzu)	5.30%
5	Storm	16.71%
6	Material or Equipment Failure	1.11%

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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 #4:**

1. SUBSTATION NAME AND NUMBER

Bledsoe E51

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Harlan 1642 W HWY 221 Bledsoe

3. CIRCUIT NAME AND NUMBER

Beach Fork 224

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

Beach Fork

5. TOTAL CIRCUIT LENGTH (MILES)

89

6. CUSTOMER COUNT FOR THIS CIRCUIT

630

7. DATE OF LAST CIRCUIT TRIM (VM)

2024

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

See exhibit D.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

1811.065

10. REPORTING YEAR (SAIDI)

4575.758

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

5.0531

12. REPORTING YEAR (SAIFI)

10.5478

13. CORRECTIVE ACTION PLAN

Line inspect, replace aging equipment, and hot spot right of way.

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

**Cumberland Valley Electric**

**Substation:** Bledsoe    **Feeder:** 224

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	5.72%
1	Power Supplier	0.02%
110	Scheduled Maintenance	0.41%
13	Bad R/W (includes kudzu)	2.61%
14	Small Animals or Birds	0.01%
2	Tree - on R/W	1.05%
3	Tree - off R/W	1.19%
4	Scheduled Outage	0.01%
5	Storm	88.84%
6	Material or Equipment Failure	0.16%

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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 #5:**

1. SUBSTATION NAME AND NUMBER  
Carpenter S85
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)  
Whitley KY HWY 92E Williamsburg
3. CIRCUIT NAME AND NUMBER  
Hwy 11 224
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)  
Hwy 11
5. TOTAL CIRCUIT LENGTH (MILES)  
133
6. CUSTOMER COUNT FOR THIS CIRCUIT  
885
7. DATE OF LAST CIRCUIT TRIM (VM)  
2024
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE  
See exhibit E.
9. CIRCUIT 5 YEAR AVERAGE (SAIDI)  
609.3164
10. REPORTING YEAR (SAIDI)  
775.4951
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)  
3.4529
12. REPORTING YEAR (SAIFI)  
6.4452
13. CORRECTIVE ACTION PLAN  
Clear right of way, install trip savers, fuses, breakers, and making system upgrades.

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

**Cumberland Valley Electric**

**Substation:** Carpenter    **Feeder:** 224

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	36.75%
13	Bad R/W (includes kudzu)	0.25%
14	Small Animals or Birds	0.81%
2	Tree - On R/W	2.82%
3	Tree - off R/W	11.23%
32	Conductor Sag/ Low Clearance	0.00%
5	Storm	47.37%
7	Vehicle Accident	0.76%
9	Lightning	1.00%
92	Jumper/Hot Line Clamp	0.01%

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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 #6:**

1. SUBSTATION NAME AND NUMBER

Carpenter S85

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Whitley HWY 92E Williamsburg

3. CIRCUIT NAME AND NUMBER

Frakes 234

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

Frakes

5. TOTAL CIRCUIT LENGTH (MILES)

136

6. CUSTOMER COUNT FOR THIS CIRCUIT

968

7. DATE OF LAST CIRCUIT TRIM (VM)

2025/2026

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

See exhibit F.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

534.3313

10. REPORTING YEAR (SAIDI)

1449.665

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.3745

12. REPORTING YEAR (SAIFI)

5.389

13. CORRECTIVE ACTION PLAN

Clear right of way, install trip savers, fuses, breakers, and make system upgrades.

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

**Cumberland Valley Electric**

**Substation:** Carpenter    **Feeder:** 234

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	6.78%
1	Power Supplier	0.01%
13	Bad R/W (includes kudzu)	0.05%
14	Small Animals or Birds	0.67%
18	Large Animals	0.05%
3	Tree - off R/W	2.66%
5	Storm	89.41%
6	Material or Equipment Failure	0.38%

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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 #7:**

1. SUBSTATION NAME AND NUMBER

Chad E103

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Harlan HWY 522 Cumberland

3. CIRCUIT NAME AND NUMBER

Linefork 204

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

Linefork

5. TOTAL CIRCUIT LENGTH (MILES)

32

6. CUSTOMER COUNT FOR THIS CIRCUIT

227

7.. DATE OF LAST CIRCUIT TRIM (VM)

2018

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

See exhibit G.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

792.179

10. REPORTING YEAR (SAIDI)

2258.313

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.3703

12. REPORTING YEAR (SAIFI)

6.5768

13. CORRECTIVE ACTION PLAN

Line inspect, tap fusing, replace aging equipment, and right of way maintenance.

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

**Cumberland Valley Electric**

**Substation:** Chad    **Feeder:** 204

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	34.04%
110	Scheduled Maintenance	2.67%
13	Bad R/W (includes kudzu)	0.66%
2	Tree - on R/W	0.02%
3	Tree - off R/W	0.87%
5	Storm	61.54%
6	Material or Equipment Failure	0.11%
7	Vehicle Accident	0.09%

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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 #8:**

1. SUBSTATION NAME AND NUMBER  
Chad E103
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)  
Harlan HWY 522 Cumberland
3. CIRCUIT NAME AND NUMBER  
Gordon 214
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)  
Gordon
5. TOTAL CIRCUIT LENGTH (MILES)  
19
6. CUSTOMER COUNT FOR THIS CIRCUIT  
134
7. DATE OF LAST CIRCUIT TRIM (VM)  
2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE  
See exhibit H.
9. CIRCUIT 5 YEAR AVERAGE (SAIDI)  
656.1581
10. REPORTING YEAR (SAIDI)  
1355.971
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)  
1.7389
12. REPORTING YEAR (SAIFI)  
2.8107
13. CORRECTIVE ACTION PLAN  
Line inspect, fuse taps, replace aging equipment, and right of way maintenance.

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

**Cumberland Valley Electric**

**Substation: Chad Feeder: 214**

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	70.45%
11	Fire	0.04%
110	Scheduled Maintenance	4.13%
13	Bad R/W (includes kudzu)	0.07%
14	Small Animals or Birds	0.07%
2	Tree - On R/W	0.06%
5	Storm	25.18%

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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 #9:**

1. SUBSTATION NAME AND NUMBER

Chad 103

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Harlan HWY 522 Cumberland

3. CIRCUIT NAME AND NUMBER

Cumberland 224

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

Cumberland

5. TOTAL CIRCUIT LENGTH (MILES)

16

6. CUSTOMER COUNT FOR THIS CIRCUIT

132

7. DATE OF LAST CIRCUIT TRIM (VM)

2022

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

See exhibit I.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

534.4128

10. REPORTING YEAR (SAIDI)

855.6551

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.6382

12. REPORTING YEAR (SAIFI)

5.5662

13. CORRECTIVE ACTION PLAN

Line inspect, fuse taps, and replace aging equipment.

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

**Cumberland Valley Electric**

**Substation: Chad**

**Feeder: 224**

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	30.30%
1	Power Supplier	5.00%
13	Bad R/W (includes kudzu)	14.54%
3	Tree - Off R/W	0.06%
5	Storm	55.06%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #10:**

1. SUBSTATION NAME AND NUMBER

Chad E103

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Harlan HWY 522 Cumberland

3. CIRCUIT NAME AND NUMBER

Putney 234

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

Putney

5. TOTAL CIRCUIT LENGTH (MILES)

47

6. CUSTOMER COUNT FOR THIS CIRCUIT

449

7. DATE OF LAST CIRCUIT TRIM (VM)

2025

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

See exhibit J.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

778.2938

10. REPORTING YEAR (SAIDI)

1351.019

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

3.0404

12. REPORTING YEAR (SAIFI)

8.9416

13. CORRECTIVE ACTION PLAN

Line inspect, fuse taps, and replace aging equipment.

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

**Cumberland Valley Electric**

**Substation:** Chad

**Feeder:** 234

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	19.01%
1	Power Supplier	0.80%
110	Scheduled Maintenance	0.46%
13	Bad R/W (includes kudzu)	3.87%
2	Tree - on R/W	0.45%
3	Tree - off R/W	3.94%
5	Storm	71.28%
6	Material or Equipment Failure	0.19%

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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 #11:**

1. SUBSTATION NAME AND NUMBER

Cumberland Falls S26

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Whitley Cumberland Falls Rd Corbin

3. CIRCUIT NAME AND NUMBER

Devils Creek 104

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

Devils Creek

5. TOTAL CIRCUIT LENGTH (MILES)

63

6. CUSTOMER COUNT FOR THIS CIRCUIT

588

7. DATE OF LAST CIRCUIT TRIM (VM)

2021

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

See exhibit K.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

368.0832

10. REPORTING YEAR (SAIDI)

577.2958

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.4527

12. REPORTING YEAR (SAIFI)

4.0472

13. CORRECTIVE ACTION PLAN

Right of way maintenance and bush hogging, system upgrades, and line inspect.

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

**Cumberland Valley Electric**

**Substation:** Cumberland Falls    **Feeder:** 104

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	44.37%
13	Bad R/W (includes kudzu)	0.04%
14	Small Animals or Birds	3.29%
2	Tree - On R/W	1.01%
3	Tree - Off R/W	16.69%
5	Storm	34.57%
94	Bad Connector	0.03%

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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 #12:**

1. SUBSTATION NAME AND NUMBER

Cumberland Falls S26

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Whitley Cumberland Falls Hwy Corbin

3. CIRCUIT NAME AND NUMBER

South Corbin 124

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

South Corbin

5. TOTAL CIRCUIT LENGTH (MILES)

73

6. CUSTOMER COUNT FOR THIS CIRCUIT

769

7.. DATE OF LAST CIRCUIT TRIM (VM)

2021

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

See exhibit L.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

232.8214

10. REPORTING YEAR (SAIDI)

206.6614

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.3822

12. REPORTING YEAR (SAIFI)

2.0483

13. CORRECTIVE ACTION PLAN

Right of way maintenance and bush hogging, system upgrades, and line inspect.

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

**Cumberland Valley Electric**

**Substation:** Cumberland Falls    **Feeder:** 124

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	30.17%
14	Small Animals or Birds	3.24%
2	Tree - On R/W	13.16%
3	Tree- Off R/W	4.85%
5	Storm	36.29%
6	Material or Equipment Failure	0.52%
92	Jumper/Hot Line Clamp	9.51%
99	Unknown	2.27%

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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 #13:**

1. SUBSTATION NAME AND NUMBER

Emanuel S21

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Knox KY 229 Barbourville

3. CIRCUIT NAME AND NUMBER

Girdler 114

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

Girdler

5. TOTAL CIRCUIT LENGTH (MILES)

24

6. CUSTOMER COUNT FOR THIS CIRCUIT

306

7.. DATE OF LAST CIRCUIT TRIM (VM)

2020

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

See exhibit M.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

258.5516

10. REPORTING YEAR (SAIDI)

745.8355

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.7024

12. REPORTING YEAR (SAIFI)

3.9197

13. CORRECTIVE ACTION PLAN

Line inspect, right of way maintenance, replace aging equipment, relocate lines and poles closer to roads.

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

**Cumberland Valley Electric**

**Substation:** Emanuel

**Feeder:** 114

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	29.79%
13	Bad R/W (includes kudzu)	0.38%
14	Small Animals or Birds	0.14%
2	Tree - On R/W	0.48%
3	Tree - Off R/W	2.96%
5	Storm	65.55%
9	Lightning	0.71%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #14:**

1. SUBSTATION NAME AND NUMBER

Emanuel S21

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Knox KY 229 Barbourville

3. CIRCUIT NAME AND NUMBER

CVE Office 144

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

CVE Office 25E

5. TOTAL CIRCUIT LENGTH (MILES)

110

6. CUSTOMER COUNT FOR THIS CIRCUIT

1010

7. DATE OF LAST CIRCUIT TRIM (VM)

2017

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

See exhibit N.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

604.8136

10. REPORTING YEAR (SAIDI)

1517.5015

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.6653

12. REPORTING YEAR (SAIFI)

4.6143

13. CORRECTIVE ACTION PLAN

Line inspect, right of way maintenance, replace aging equipment, relocate lines and poles closer to road.

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

**Cumberland Valley Electric**

**Substation:** Emanuel

**Feeder:** 144

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	82.86%
13	Bad R/W (includes kudzu)	0.06%
14	Small Animals or Birds	0.79%
2	Tree - On R/W	0.91%
3	Tree - Off R/W	0.35%
5	Storm	14.98%
6	Material or Equipment Failure	0.03%
7	Vehicle Accident	0.01%
99	Unknown	0.01%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #15:**

1. SUBSTATION NAME AND NUMBER

Girdler S106

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Knox Hampton Cemetery R<sub>c</sub> Girdler

3. CIRCUIT NAME AND NUMBER

Fount 104

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

Fount

5. TOTAL CIRCUIT LENGTH (MILES)

70

6. CUSTOMER COUNT FOR THIS CIRCUIT

508

7.. DATE OF LAST CIRCUIT TRIM (VM)

2020

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

See exhibit O.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

375.4005

10. REPORTING YEAR (SAIDI)

325.6277

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.5155

12. REPORTING YEAR (SAIFI)

1.6302

13. CORRECTIVE ACTION PLAN

Hot spot right of way, line inspect, and fusing.

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

**Cumberland Valley Electric**

**Substation:** Girdler

**Feeder:** 104

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	40.63%
11	Fire	0.20%
13	Bad R/W (includes kudzu)	0.09%
14	Small Animals or Birds	4.01%
2	Tree - On R/W	1.21%
3	Tree - Off R/W	9.54%
5	Storm	44.22%
6	Material or Equipment Failure	10.00%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #16:**

1. SUBSTATION NAME AND NUMBER

Girdler S106

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Knox Hampton Cemetery R/c Girdler

3. CIRCUIT NAME AND NUMBER

Callebs Creek 114

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

Callebs Creek

5. TOTAL CIRCUIT LENGTH (MILES)

34

6. CUSTOMER COUNT FOR THIS CIRCUIT

420

7. DATE OF LAST CIRCUIT TRIM (VM)

2020

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

See exhibit P.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

149.881

10. REPORTING YEAR (SAIDI)

221.7

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.1242

12. REPORTING YEAR (SAIFI)

1.4944

13. CORRECTIVE ACTION PLAN

Hot spot right of way, line inspect, and fuse taps.

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

**Cumberland Valley Electric**

**Substation:** Girdler

**Feeder:** 114

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	46.00%
13	Bad R/W (includes kudzu)	1.32%
14	Small Animals or Birds	25.13%
2	Tree - On R/W	4.06%
3	Tree - Off R/W	1.00%
5	Storm	20.38%
6	Material or Equipment Failure	1.33%
99	Unknown	0.78%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #17:**

1. SUBSTATION NAME AND NUMBER

Girdler S106

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Knox Hampton Cemetery Rd Girdler

3. CIRCUIT NAME AND NUMBER

Cannon 134

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

Cannon

5. TOTAL CIRCUIT LENGTH (MILES)

13

6. CUSTOMER COUNT FOR THIS CIRCUIT

170

7. DATE OF LAST CIRCUIT TRIM (VM)

2020

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

See exhibit Q.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

275.3262

10. REPORTING YEAR (SAIDI)

108.5537

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.754

12. REPORTING YEAR (SAIFI)

1.7351

13. CORRECTIVE ACTION PLAN

Hot spot right of way, line inspect, and fuse taps.

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

**Cumberland Valley Electric**

**Substation:** Girdler

**Feeder:** 134

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	20.21%
14	Small Animals or Birds	44.88%
2	Tree - on R/W	26.14%
5	Storm	8.76%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #18:**

1. SUBSTATION NAME AND NUMBER

Goldbug S64

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Whitley US HWY 25W Williamsburg

3. CIRCUIT NAME AND NUMBER

Redbird Rc 114

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

Redbird Rd

5. TOTAL CIRCUIT LENGTH (MILES)

22

6. CUSTOMER COUNT FOR THIS CIRCUIT

260

7.. DATE OF LAST CIRCUIT TRIM (VM)

2023

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

See exhibit R.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

156.1039

10. REPORTING YEAR (SAIDI)

301.9012

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.1411

12. REPORTING YEAR (SAIFI)

2.2226

13. CORRECTIVE ACTION PLAN

Line inspect, hot spot right of way, replace aging equipment.

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

**Cumberland Valley Electric**

**Substation:** Goldbug

**Feeder:** 114

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	51.31%
14	Small Animals or Birds	1.98%
3	Tree - Off R/W	17.28%
5	Storm	28.55%
99	Unknown	0.87%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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:**

1. SUBSTATION NAME AND NUMBER

Goldbug S64

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Whitley US HWY 25W Williamsburg

3. CIRCUIT NAME AND NUMBER

Canada Town 124

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

Canada Town

5. TOTAL CIRCUIT LENGTH (MILES)

76

6. CUSTOMER COUNT FOR THIS CIRCUIT

1081

7.. DATE OF LAST CIRCUIT TRIM (VM)

2022/2023

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

See exhibit S.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

232.4443

10. REPORTING YEAR (SAIDI)

528.385

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.317

12. REPORTING YEAR (SAIFI)

3.471

13. CORRECTIVE ACTION PLAN

Line inspect, hot spot right of way, and replace aging equipment.

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

**Cumberland Valley Electric**

**Substation:** Goldbug

**Feeder:** 124

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	23.31%
13	Bad R/W (includes kudzu)	2.13%
14	Small Animals or Birds	3.02%
2	Tree - On R/W	1.01%
3	Tree- Off R/W	10.89%
4	Scheduled Outage	0.00%
5	Storm	51.65%
6	Material or Equipment Failure	7.92%
9	Lightning	0.02%
99	Unknown	0.04%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #20:**

1. SUBSTATION NAME AND NUMBER

Goldbug S64

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Whitley US HWY 25W Williamsburg

3. CIRCUIT NAME AND NUMBER

Duck Run/Cripple Creek 134

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

Duck Run/Cripple Creek

5. TOTAL CIRCUIT LENGTH (MILES)

87

6. CUSTOMER COUNT FOR THIS CIRCUIT

607

7.. DATE OF LAST CIRCUIT TRIM (VM)

2022

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

See exhibit T.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

494.4027

10. REPORTING YEAR (SAIDI)

1266.923

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.8682

12. REPORTING YEAR (SAIFI)

3.9493

13. CORRECTIVE ACTION PLAN

Line inspect, hot spot right of way, and replace aging equipment.

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

**Cumberland Valley Electric**

**Substation:** Goldbug

**Feeder:** 134

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	19.87%
13	Bad R/W (includes kudzu)	0.66%
14	Small Animals or Birds	0.40%
2	Tree - On R/W	0.77%
3	Tree - Off R/W	6.91%
5	Storm	70.45%
6	Material or Equipment Failure	0.09%
9	Lightning	0.01%
99	Unknown	0.83%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #21:**

1. SUBSTATION NAME AND NUMBER

Goldbug S64

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Whitley HWY 25W Williamsburg

3. CIRCUIT NAME AND NUMBER

Williamsburg Plastics 144

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

Goldbug

5. TOTAL CIRCUIT LENGTH (MILES)

7

6. CUSTOMER COUNT FOR THIS CIRCUIT

107

7.. DATE OF LAST CIRCUIT TRIM (VM)

2023

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

See exhibit U.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

41.2755

10. REPORTING YEAR (SAIDI)

46.0124

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.3518

12. REPORTING YEAR (SAIFI)

0.7509

13. CORRECTIVE ACTION PLAN

Line inspect, hot spot right of way, replace aging equipment.

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

**Cumberland Valley Electric**

**Substation:** Goldbug

**Feeder:** 144

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	8.97%
14	Small Animals or Birds	63.10%
2	Tree - On R/W	27.93%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #22:**

1. SUBSTATION NAME AND NUMBER

Hinkle S53

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Knox KY HWY 1304 Bimble

3. CIRCUIT NAME AND NUMBER

Atremus 104

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

Atremus

5. TOTAL CIRCUIT LENGTH (MILES)

68

6. CUSTOMER COUNT FOR THIS CIRCUIT

467

7.. DATE OF LAST CIRCUIT TRIM (VM)

2023

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

See exhibit V.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

198.2666

10. REPORTING YEAR (SAIDI)

449.2729

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.9391

12. REPORTING YEAR (SAIFI)

3.6737

13. CORRECTIVE ACTION PLAN

Right of way maintenace and system upgrades.

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

**Cumberland Valley Electric**

**Substation:** Hinkle

**Feeder:** 104

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	47.23%
13	Bad R/W (includes kudzu)	0.03%
14	Small Animals or Birds	1.26%
2	Tree - On R/W	12.94%
3	Tree - Off R/W	33.79%
5	Storm	2.98%
6	Material or Equipment Failure	0.02%
99	Unknown	1.75%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #23:**

1. SUBSTATION NAME AND NUMBER

Hinkle S53

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Knox KY 1304 Bimble

3. CIRCUIT NAME AND NUMBER

HWY 1304 124

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

HWY 1304

5. TOTAL CIRCUIT LENGTH (MILES)

33

6. CUSTOMER COUNT FOR THIS CIRCUIT

340

7.. DATE OF LAST CIRCUIT TRIM (VM)

2013/Current

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

See exhibit W.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

352.9711

10. REPORTING YEAR (SAIDI)

368.4583

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.4848

12. REPORTING YEAR (SAIFI)

1.4749

13. CORRECTIVE ACTION PLAN

Currently cutting right of way and adding tap fuses, and line inspecting.

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

**Cumberland Valley Electric**

**Substation:** Hinkle

**Feeder:** 124

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	48.39%
110	Scheduled Maintenance	0.66%
14	Small Animals or Birds	1.64%
2	Tree - On R/W	6.77%
3	Tree - Off R/W	5.52%
5	Storm	36.19%
6	Material or Equipment Failure	0.72%
99	Unknown	0.10%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #24:**

1. SUBSTATION NAME AND NUMBER

Liberty Church S107

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Knox Canyon Ridge Rd Corbin

3. CIRCUIT NAME AND NUMBER

Hwy 6 114

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

Hwy 6

5. TOTAL CIRCUIT LENGTH (MILES)

96

6. CUSTOMER COUNT FOR THIS CIRCUIT

727

7. DATE OF LAST CIRCUIT TRIM (VM)

2022

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

See exhibit X.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

318.0727

10. REPORTING YEAR (SAIDI)

757.176

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.0853

12. REPORTING YEAR (SAIFI)

3.8638

13. CORRECTIVE ACTION PLAN

Line inspect, right of way maintenance, system upgrades, and fuse taps.

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

**Cumberland Valley Electric**

**Substation:** Liberty Church      **Feeder:** 114

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	85.06%
1	Power Supplier	0.01%
14	Small Animals or Birds	1.57%
2	Tree - On R/W	0.02%
3	Tree - Off R/W	4.17%
5	Storm	8.03%
6	Material or Equipment Failure	0.71%
99	Unknown	0.43%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #25:**

1. SUBSTATION NAME AND NUMBER  
Liberty Church S107
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)  
Knox Canyon Ridge Rd Corbin
3. CIRCUIT NAME AND NUMBER  
Industrial Park/Corbin Bypass 124
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)  
Corbin Bypass
5. TOTAL CIRCUIT LENGTH (MILES)  
12
6. CUSTOMER COUNT FOR THIS CIRCUIT  
75
- 7.. DATE OF LAST CIRCUIT TRIM (VM)  
2022
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBER:  
NUMBERS REPRESENTED BY EACH CAUSE  
See exhibit Y.
9. CIRCUIT 5 YEAR AVERAGE (SAIDI)  
140.2112
10. REPORTING YEAR (SAIDI)  
354.2852
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)  
0.9515
12. REPORTING YEAR (SAIFI)  
2.6819
13. CORRECTIVE ACTION PLAN  
Line inspect, right of way maintenance, system upgrades, and fuse taps.

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

**Cumberland Valley Electric**

**Substation:** Liberty Church      **Feeder:** 124

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	72.58%
14	Small Animals or Birds	27.13%
2	Tree - On R/W	0.29%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #26:**

1. SUBSTATION NAME AND NUMBER

Liberty Church S107

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Knox Canyon Ridge Rd Corbin

3. CIRCUIT NAME AND NUMBER

Candle Ridge 134

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

Candle Ridge Church Rd

5. TOTAL CIRCUIT LENGTH (MILES)

31

6. CUSTOMER COUNT FOR THIS CIRCUIT

307

7.. DATE OF LAST CIRCUIT TRIM (VM)

2022

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

See exhibit Z.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

534.1094

10. REPORTING YEAR (SAIDI)

283.1441

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.1655

12. REPORTING YEAR (SAIFI)

3.1501

13. CORRECTIVE ACTION PLAN

Line inspect, right of way maintenance, system upgrades, and fuse taps.

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

**Cumberland Valley Electric**

**Substation:** Liberty Church      **Feeder:** 134

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	48.14%
110	Scheduled Maintenance	2.24%
14	Small Animals or Birds	6.22%
3	Tree - Off R/W	3.30%
5	Storm	40.04%
6	Material or Equipment Failure	0.05%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #27:**

1. SUBSTATION NAME AND NUMBER

North Corbin S48

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Knox Watch Rd Corbin

3. CIRCUIT NAME AND NUMBER

Poplar Grove 144

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

Poplar Grove Rd

5. TOTAL CIRCUIT LENGTH (MILES)

55

6. CUSTOMER COUNT FOR THIS CIRCUIT

606

7. DATE OF LAST CIRCUIT TRIM (VM)

2022

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

See exhibit AA.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

250.7236

10. REPORTING YEAR (SAIDI)

374.7083

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.5148

12. REPORTING YEAR (SAIFI)

2.6719

13. CORRECTIVE ACTION PLAN

Line inspect, hot spot right of way, fuse taps.

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

**Cumberland Valley Electric**

**Substation:** North Corbin

**Feeder:** 144

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	48.78%
13	Bad R/W (includes kudzu)	0.73%
14	Small Animals or Birds	0.40%
2	Tree - On R/W	6.48%
3	Tree - Off R/W	7.48%
5	Storm	18.92%
9	Lightning	17.21%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #28:**

1. SUBSTATION NAME AND NUMBER

Ovenfork E64

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Letcher HWY 119S Whitesburg

3. CIRCUIT NAME AND NUMBER

Eolia 224

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

Eolia

5. TOTAL CIRCUIT LENGTH (MILES)

45

6. CUSTOMER COUNT FOR THIS CIRCUIT

365

7.. DATE OF LAST CIRCUIT TRIM (VM)

2022

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

See exhibit BB.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

985.3857

10. REPORTING YEAR (SAIDI)

1701.9299

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.7528

12. REPORTING YEAR (SAIFI)

4.5162

13. CORRECTIVE ACTION PLAN

Line inspect and hot spot right of way.

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

**Cumberland Valley Electric**

**Substation:** Ovenfork

**Feeder:** 224

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	68.57%
13	Bad R/W (includes kudzu)	2.26%
14	Small Animals or Birds	0.03%
2	Tree - On R/W	14.04%
3	Tree - Off R/W	5.35%
5	Storm	9.70%
6	Material or Equipment Failure	0.02%
7	Vehicle Accident	0.04%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #29:**

1. SUBSTATION NAME AND NUMBER

Ovenfork E64

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Letcher HWY 119 S Whitesburg

3. CIRCUIT NAME AND NUMBER

Cumberland 234

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

Cumberland

5. TOTAL CIRCUIT LENGTH (MILES)

44

6. CUSTOMER COUNT FOR THIS CIRCUIT

454

7. DATE OF LAST CIRCUIT TRIM (VM)

2022

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

See exhibit CC.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

398.9535

10. REPORTING YEAR (SAIDI)

285.2823

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

3.6063

12. REPORTING YEAR (SAIFI)

4.497

13. CORRECTIVE ACTION PLAN

Line inspect and hot spot right of way.

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

**Cumberland Valley Electric**

**Substation:** Ovenfork

**Feeder:** 234

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	54.38%
13	Bad R/W (includes kudzu)	0.20%
3	Tree - Off R/W	0.47%
5	Storm	33.60%
6	Material or Equipment Failure	0.39%
99	Unknown	10.96%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #30:**

1. SUBSTATION NAME AND NUMBER

Pine Mountain E50

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Harlan E HWY 221 Bledsoe

3. CIRCUIT NAME AND NUMBER

Bledsoe 214

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

Bledsoe

5. TOTAL CIRCUIT LENGTH (MILES)

25

6. CUSTOMER COUNT FOR THIS CIRCUIT

112

7.. DATE OF LAST CIRCUIT TRIM (VM)

2018

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

See exhibit DD.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

843.8977

10. REPORTING YEAR (SAIDI)

1283.1462

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.3688

12. REPORTING YEAR (SAIFI)

4.8581

13. CORRECTIVE ACTION PLAN

Right of way maintenance, line inspect, and system upgrades.

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

**Cumberland Valley Electric**

**Substation:** Pine Mountain      **Feeder:** 214

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	36.26%
110	Scheduled Maintenance	0.03%
13	Bad R/W (includes kudzu)	1.78%
14	Small Animals or Birds	47.32%
2	Tree - On R/W	1.41%
3	Tree - Off R/W	0.33%
5	Storm	0.02%
8	Vandalism	12.85%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #31:**

1. SUBSTATION NAME AND NUMBER

Pine Mountain E50

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Harlan E HWY 221 Bledsoe

3. CIRCUIT NAME AND NUMBER

Gabe's Branch 234

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

Gabe's Branch

5. TOTAL CIRCUIT LENGTH (MILES)

39

6. CUSTOMER COUNT FOR THIS CIRCUIT

316

7. DATE OF LAST CIRCUIT TRIM (VM)

2018

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

See exhibit EE.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

625.4939

10. REPORTING YEAR (SAIDI)

1203.0109

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.9794

12. REPORTING YEAR (SAIFI)

6.5938

13. CORRECTIVE ACTION PLAN

Right of way maintenance and system upgrades.

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

**Cumberland Valley Electric**

**Substation:** Pine Mountain      **Feeder:** 234

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	32.71%
1	Power Supplier	0.01%
13	Bad R/W (includes kudzu)	1.14%
14	Small Animals or Birds	0.02%
3	Tree - Off R/W	0.35%
5	Storm	65.61%
6	Material or Equipment Failure	0.16%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #32:**

1. SUBSTATION NAME AND NUMBER

Rockholds S22

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Whitley Tyes Ferry Rd Rockholds

3. CIRCUIT NAME AND NUMBER

Corbin/Woodbine 104

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

Corbin/Woodbine

5. TOTAL CIRCUIT LENGTH (MILES)

65

6. CUSTOMER COUNT FOR THIS CIRCUIT

604

7.. DATE OF LAST CIRCUIT TRIM (VM)

2022

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

See exhibit FF.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

600.153

10. REPORTING YEAR (SAIDI)

914.042

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.9175

12. REPORTING YEAR (SAIFI)

3.509

13. CORRECTIVE ACTION PLAN

Right of way maintenance and system upgrades.

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

**Cumberland Valley Electric**

**Substation:** Rockholds

**Feeder:** 104

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	23.34%
1	Power Supplier	0.01%
13	Bad R/W (includes kudzu)	0.30%
14	Small Animals or Birds	0.13%
3	Tree - Off R/W	0.50%
5	Storm	75.56%
6	Material or Equipment Failure	0.02%
92	Jumper/Hot Line Clamp	0.14%
99	Unknown	0.01%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #33:**

1. SUBSTATION NAME AND NUMBER  
Rockholds S22
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)  
Whitley Tyes Ferry Rd Rockholds
3. CIRCUIT NAME AND NUMBER  
Goldbug/Williamsburg 144
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)  
Goldbug
5. TOTAL CIRCUIT LENGTH (MILES)  
73
6. CUSTOMER COUNT FOR THIS CIRCUIT  
697
7. DATE OF LAST CIRCUIT TRIM (VM)  
2015
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE  
See exhibit GG.
9. CIRCUIT 5 YEAR AVERAGE (SAIDI)  
382.9422
10. REPORTING YEAR (SAIDI)  
281.4352
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)  
1.6971
12. REPORTING YEAR (SAIFI)  
2.3352
13. CORRECTIVE ACTION PLAN  
Right of way maintenance and system upgrades.

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

**Cumberland Valley Electric**

**Substation:** Rockholds

**Feeder:** 144

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	52.97%
13	Bad R/W (includes kudzu)	0.11%
14	Small Animals or Birds	1.44%
2	Tree - On R/W	1.69%
3	Tree - Off R/W	5.94%
5	Storm	31.16%
6	Material or Equipment Failure	2.48%
9	Lightning	4.00%
92	Jumper/Hot Line Clamp	0.20%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #34:**

1. SUBSTATION NAME AND NUMBER

South Corbin S45

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Whitley Corinth Cemetery Rd Corbin

3. CIRCUIT NAME AND NUMBER

Tattersall 114

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

Tattersall

5. TOTAL CIRCUIT LENGTH (MILES)

20

6. CUSTOMER COUNT FOR THIS CIRCUIT

378

7. DATE OF LAST CIRCUIT TRIM (VM)

2020

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

See exhibit HH.

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

39.2143

10. REPORTING YEAR (SAIDI)

113.2081

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.5101

12. REPORTING YEAR (SAIFI)

2.0565

13. CORRECTIVE ACTION PLAN

Right of way maintenance and system upgrades.

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

**Cumberland Valley Electric**

**Substation:** South Corbin      **Feeder:** 114

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	3.88%
13	Bad R/W (includes kudzu)	0.41%
14	Small Animals or Birds	0.10%
6	Material or Equipment Failure	33.25%
9	Lightning	62.21%
99	Unknown	0.15%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #35:**

1. SUBSTATION NAME AND NUMBER  
South Corbin S45
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)  
Whitley Corinth Rd Corbin
3. CIRCUIT NAME AND NUMBER  
5th Street 144
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)  
5th Street
5. TOTAL CIRCUIT LENGTH (MILES)  
58
6. CUSTOMER COUNT FOR THIS CIRCUIT  
821
7. DATE OF LAST CIRCUIT TRIM (VM)  
2019
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE  
See exhibit II.
9. CIRCUIT 5 YEAR AVERAGE (SAIDI)  
184.2201
10. REPORTING YEAR (SAIDI)  
610.851
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)  
0.8665
12. REPORTING YEAR (SAIFI)  
2.3591
13. CORRECTIVE ACTION PLAN  
Right of way maintenance and system upgrades.

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

**Cumberland Valley Electric**

**Substation:** South Corbin      **Feeder:** 144

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	10.70%
14	Small Animals or Birds	0.93%
2	Tree - On R/W	4.14%
3	Tree - Off R/W	3.62%
5	Storm	70.04%
6	Material or Equipment Failure	5.24%
7	Vehicle Accident	4.90%
77	Public Cut Tree	0.02%
9	Lightning	0.39%
99	Unknown	0.03%

# KENTUCKY PUBLIC SERVICE COMMISSION

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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 #36:**

1. SUBSTATION NAME AND NUMBER  
South Corbin S45
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)  
Whitley Corinth Cemetery Rd Corbin
3. CIRCUIT NAME AND NUMBER  
Corinth 124
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)  
Corinth Rd
5. TOTAL CIRCUIT LENGTH (MILES)  
27
6. CUSTOMER COUNT FOR THIS CIRCUIT  
323
7. DATE OF LAST CIRCUIT TRIM (VM)  
2019
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE  
See exhibit JJ.
9. CIRCUIT 5 YEAR AVERAGE (SAIDI)  
512.6288
10. REPORTING YEAR (SAIDI)  
844.7436
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)  
2.5501
12. REPORTING YEAR (SAIFI)  
2.6041
13. CORRECTIVE ACTION PLAN  
Right of way maintenance and system upgrades.

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

**Cumberland Valley Electric**

**Substation:** South Corbin

**Feeder:** 124

**8. List Outage Causes by Circuit with Percentage of Total Outage Numbers by Cause**

<b>Cause Code</b>	<b>Description</b>	<b>% of Contribution to Total for Circuit</b>
0	No Cause Code	39.98%
14	Small Animals or Birds	0.82%
2	Tree - On R/W	6.00%
3	Tree - Off R/W	9.86%
5	Storm	49.22%
92	Jumper/Hot Line Clamp	0.04%
99	Unknown	0.03%

Cumberland Valley Electric  
Operations and Engineering Department  
6219 US Hwy 25E  
Gray, KY 40734  
606-528-2677

VEGETATION MANAGEMENT PLAN  
GUIDELINES, METHODS  
AND PROCEDURES

January 1, 2018

**EXHIBIT DD**

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## Section 1.0 Definitions

- A. "CVE" shall mean Cumberland Valley Electric Cooperative
- B. "Contractor" shall mean the successful Bidder to whom a Contract is awarded.
- C. "Work" shall refer to everything agreed to be done and furnished by the Contractor including all supervision, supplies, labor, transportation and equipment together with all responsibilities and obligations imposed by the Contract Documents.
- D. "Equipment" shall mean the trucks, trailers, tools, saws, and other apparatus which are owned and operated by the Contractor for the performance of the Contract in accordance with the Specifications.
- E. "Specifications" shall mean all specifications pertaining to the Work to be performed.
- F. "Contract" shall mean the fully executed document which binds the interested parties in an agreement to fulfill all terms, conditions, and specifications.
- G. "Invitation for Bids" shall be the means by which CVE solicits bids from Pre-Qualified Contractors for Work which CVE may from time to time deem necessary to have performed.
- H. "Install", "Furnish", "Provide" or words of like import shall mean the Contractor shall install, furnish, or provide and similarly the words "Approved", "Authorized", "Required", "Satisfactory", "Acceptable" or words of like import shall mean, as applicable, approved by, required by, satisfactory to, or acceptable to CVE, unless otherwise expressly stated.
- I. "Prequalified Contractor" shall mean a contractor who is determined by CVE to be eligible to bid on the Work, subject to any of CVE's conditions, but such status shall not imply or infer compliance with any of the requirements of the Contract, Specifications or other Contract Documents.
- J. "Tree" shall mean any woody vegetation with a DBH (Diameter at Breast Height) of 4 inches or greater.
- K. "Brush" shall mean any vegetation with a DBH of less than 4 inches.

**Section 2.0 Bidder's Qualifications**

- 2.1 Bids will be accepted only from well-established and qualified licensed contractors, trained and experienced in the clearing of power line rights of way and tree trimming that have been approved by CVE as a Pre-Qualified Contractor. No bid will be considered from any Contractor unless they are known to be skilled and were previously engaged in work of a character and scope consistent with these bid specifications.
- 2.2 Bidders must show that their equipment and facilities are sufficient and their workload so arranged as to meet the schedules called for by the Contract without the use of subcontractors. In order to aid CVE in determining the responsibility of any Bidder, the Bidder shall furnish evidence, satisfactory to CVE, of the Bidder's qualifications, experience and familiarity with work of the character specified and his or her financial ability to properly prosecute the proposed work to completion.
- 2.3 Unless previously approved, each Bidder shall submit to CVE a Contractor's Prequalification Application Form, available at CVE's office, and must be subsequently approved by CVE as a Pre-Qualified Contractor in order to receive a formal Invitation to Bid. CVE will only accept bids from Bidders who have been approved by CVE as a Pre-Qualified Contractor.

**Section 3.0 Instruction to Bidders**

- 3.1 Bids that are sent by US Postal Service or private carrier shall be clearly marked "BID ENVELOPE ENCLOSED". The bid shall be sealed in a separate envelope and shall have the following information shown on the outside of the envelope:

**BID FOR: Power Line Right of Way Clearance and Tree Trimming**

**BID DUE: TBD**

**OWNER: Cumberland Valley Electric**

**BIDDER: \_\_\_\_\_**

Envelope must be addressed and submitted to:

Cumberland Valley Electric

Attn: Supervisor

6219 US Hwy 25E

Gray, KY 40734

Any bid not conforming to these requirements will not be considered.

- 3.2 Before submitting a bid, each Bidder must (a) examine the Contract Documents thoroughly, (b) visit the system to become familiar with local conditions, that may in any manner, affect cost, progress, or performance of the work, (c) have knowledge of all federal, state and local laws, ordinances, rules and regulations affecting performance of

the work, and (d) carefully correlate the Bidder's observations with the requirements of the Contract Documents.

- 3.3 Each bid shall be carefully prepared in accordance with the CVE Specifications referenced in the Contract Documents.
- 3.4 Each bid shall be signed by a representative of the Bidder who is authorized to make contractual obligations for the Bidder and shall give the Bidder's full business address. Bids by partnerships shall be signed with the partnership name followed by the signature and designation of one of the partners and other authorized representative.
- 3.5 Bids by a corporation shall be signed in the name of the corporation, followed by the signature and designation of the president, secretary, or other person authorized to bind the corporation. The name of all persons signing shall also be typed or printed.
- 3.6 Sealed bids will be opened in private the day the bids are due. Contractors will be notified of any awarded work after Board approval.
- 3.7 CVE reserves the right to reject any and all bids, waive any and all technicalities therein, disregard all nonconforming or conditional bids, and evaluate and award bids on other than low bid basis. By submission of a bid, Bidder thereby agrees to these stipulations *and will not challenge CVE's decision.*
- 3.8 CVE may conduct such investigations as it deems prudent to establish the responsibility, qualifications, and financial ability of the Bidders. CVE's final selection of the best overall bid submitted, as determined solely by CVE, shall be based upon factors such as: financial stability of bidder; personal experience and training; surveys of current and previous employers and previous work history with CVE; overall quality of equipment and organization; ability to adequately serve CVE with full coverage, customer responsiveness and complaint processing; employee safety training, safety compliance and procedures, including drug-free workforce initiatives, etc.
- 3.9 When the Contract is awarded, CVE will provide the successful Bidder written notice of award after its Board of Directors meeting and final approval is obtained.
- 3.10 CVE may elect during the term of this Contract to award one (1) or more additional contracts for rights of way clearance and tree trimming via alternative contractual arrangements such as hourly rates, unit cutting, zone clearing, or lump sum cost for circuit trimming. Nothing contained herein shall be construed as prohibiting CVE from awarding such additional contracts as it deems necessary for the continued safe operation and maintenance of its electric distribution system.

3.11 The term of the agreement will be decided upon and documented in the contract.

#### **Section 4.0 Introduction: Guidelines and Evaluation Methods**

In order to maintain line clearance for public safety and electrical reliability, CVE regularly undertakes tree trimming and herbicide activities. These activities are required in order to be compliant with NESC, as well as Kentucky Revised Statute, and guidelines promulgated by OSHA. This guide details the methods and guidelines which CVE uses to accomplish that goal.

##### **Goal:**

The goal of our right-of-way clearance program is to maintain line clearance for public safety and electric system reliability.

##### **Strategy:**

The strategy for clearing and maintaining line clearance is to arrange the entire system in operable units, defined by individual circuits or substations, and to operate line clearance activities on those units in a regular and scheduled manner.

##### **Tactics:**

The tactics involved are detailed in the following Guidelines. At the development stage of CVE's vegetation management plan, circuits were prioritized on the basis of last available date of trimming, and vegetation conditions found by onsite circuit inspections which occur periodically throughout the year as a part of normal activities to determine circuit condition. Reliability, measured by the number of tree related outages expressed on a per circuit mile basis was further used to identify circuits which should be cleared the soonest, with the highest going first and so on. Circuit outages due to trees are regularly reviewed to determine if any adjustment of the trimming cycle to address changing conditions on the circuit is warranted. Onsite inspection further allows adjustment of these time frames should extraordinary circumstances warrant such and adjustment. Examples of such circumstances are: insect infestation damage (Southern Pine Beetle, Emerald Ash Bore, etc.), heavy forest fire damage which will result in tree losses throughout the circuit, or weather related instances.

The effectiveness of the plan is evaluated by the reduction of the frequency of tree related outages, and the duration of tree related outages on the treated circuit. This is monitored by the contribution of tree related outages to both customer and system average interruption indices (SAIDI, SAIFI, and CAIDI). Reports generated by the dispatch Outage Management System (OMS) identify these circuits and the nature and frequency of outages.

CVE conducts clearing activity in each circuit feeder to one full circuit clearing, encompassing floor, side and shade tree trimming (ground to sky 30' wide) each five-year circuit cycle. Circuits and new construction units are then scheduled for chemical treatment and/or right-of-way clearing and/or bush hogging.

## Section 5.0 General Requirements

- 5.1 Bidders bidding on herbicide treatment work shall be trained and licensed in the handling and use of chemicals and sprays, and shall furnish evidence of the same, for foliage, basal, and tree stump applications. Evidence shall include, without being limited to, the Bidder's Commercial Applicator's License Number certified in Category 6- Right of Way from the Kentucky Department of Agriculture.
- 5.2 A contract crew shall consist of all necessary personnel and all necessary tools and equipment as outlined in the Contractor's Pre-Qualification Application Form, to safely and efficiently complete the work. CVE reserves the right to do any Work covered within the Contract by its own forces, to have such Work performed by other contractors, to cause such Work to be completed by other means, or to defer any Work to a future date.
- 5.3 *Since Contractor(s) employees come in contact with CVE customers, they shall be completely dressed in suitable clothing which shall be clean at the beginning of each day. All clothing worn by contracting employees must conform to arc flash regulations as require by law if working within the minimum approach distance.*

Each crew shall have a cell phone or some other method of communication that CVE can use to contact them at all times. In the case of cell phones, the phone numbers shall be given to CVE's Supervisor and said phone numbers kept current.

The number and type of personnel and equipment making up each crew shall be agreed upon by the owner. The contractor understands and accepts the fact that the owner reserves the right to terminate the contract for any reason at any time and that there is no guarantee of any specific types or amounts of work.

Identification badges or other forms of identification which display the Company's name, contact information, position, etc. are required and must be shown to the customer upon request.

- 5.4 All trucks and other vehicles provided by the Contractor to perform the Work shall bear the Contractor's number and shall be well marked and identified with company insignia or name designating the vehicles as property of the Contractor and have "Contractor for Cumberland Valley Electric" magnets in place.

- 5.5 Contractor shall observe all generally recognized safety rules (including without limitation the provisions of the National Electrical Safety Code and ANSI Z133.1-2000 or latest edition thereof), regulations, and methods to prevent injury to all employees and other persons or damage to property of CVE or the public arising from its operations. Contractor shall observe all laws and regulations applicable to its operations including without limitation OSHA requirements, Kentucky Department of Transportation requirements, and Kentucky Department of Agriculture requirements.
- 5.6 Contractor shall secure from CVE information as to the nature of the electric circuits involved in all cases prior to commencement of Work in each area. Contractor acknowledges that CVE's electric circuits are to continue in normal operation during the Work, and Contractor shall provide and use all protective equipment necessary for the protection of its employees and to guard against interfering with the normal operation of these electric circuits. If a line is interrupted or damaged caused by work from this operation the Contractor will be responsible for cost of repairing and restoring that line.
- 5.7 Contractor shall immediately notify CVE of any irregular situations observed on CVE's system, including, without limitation, equipment or facility malfunctions, actual or potential safety problems, loose or sagging guy wires, damaged conductors, leaking transformers, damaged or defective poles, and any other seemingly unusual circumstance encountered by the Contractor.
- 5.8 If, during the term of the Contract, additional hourly crews or workers are needed to perform right of way clearing, tree trimming, chemical applications, CVE will first request such crews or workers from the Contractor then working for CVE. Should the Contractor fail to furnish additional crews or workers upon thirty (30) days written notice, CVE shall have the right to obtain additional crews or workers from other resources.
- 5.9 Contractor shall promote a drug and alcohol free working environment.
- 5.10 Contractor(s) shall not perform or solicit any type of private tree trimming work on customer's property while actively engaged in performing work for CVE under this contract until all work on the circuit is completed.

## Section 6.0 Work

- 6.1 Contractor shall perform all Work to the complete satisfaction of CVE and in accordance with all municipal, county, state and other local laws, ordinances, and regulations applicable to Work of this character and nature. All Work performed by the Contractor is subject to inspection and approval by CVE. Any Work not meeting the minimums as set forth in these Specifications, or generally accepted line clearance standards, or Work which has been falsely represented in any fashion by Contractor shall be redone by the Contractor at no (zero) cost to CVE. Failure by CVE to inspect Contractor's Work shall in

no way relieve the Contractor from any obligations, liabilities, or responsibilities in connection with the Contract.

- 6.2 Contractor agrees to provide adequate notice and if possible, obtain consent, for the necessary work from the property owner or public authorities having ownership or control over each tree to be trimmed or removed and/or all property to be cleared or sprayed. Contractor shall discuss with the property owner the type of work to be performed, identifying any and all trees that need to be trimmed or removed, the disposal of brush, any areas that need to be sprayed, and the proposed route of all vehicles and equipment traveling over the owner's property. When property owners cannot be contacted, door hangers shall be left to inform them that Contractor was present to trim trees. Hangers (provided by CVE) shall contain information as Company Name, Phone Number, etc. whenever permission to do any work cannot be obtained, CVE shall be informed of the situation.
- 6.3 Contractor shall certify that complaints of any nature received from property owners or public authorities resulting from this Work will receive immediate attention and that all efforts will be made to effect a prompt adjustment. If any damage is done to the property of others by Contractor's workforce, Contractor shall repair and restore at its sole expense any such property and correct any damage inflicted thereto, all to the complete satisfaction of the owner(s) of the injured property. All complaints, and any action taken by Contractor in connection with such complaints, shall be reported to CVE. If the repairs are not made in a timely manner CVE will make the repairs and invoice the said contractor.
- 6.4 Contractor shall secure all permits and licenses necessary for the Work to be performed and pay all charges and fees required for such permits and licenses.
- 6.5 Contractor(s) shall provide sufficient crews to complete the work in the specified time period. However, CVE expects that after work has begun on specified circuits, the Contractor's operation will progress on a continued basis with necessary staffing levels to complete the required circuit miles by the end of the term of the contract. Crew size, crew structure, crew equipment, and the need for any additional crews under this contract will be at the Contractor's sole discretion. Any work not completed by the specified date must still be completed by the Contractor. The inability to finish the work on time will also be considered and noted before any future bid work is granted to that Contractor.

#### **Section 7.0 Notification/Authorization to Trim or Remove Trees**

Cumberland Valley Electric's right-of-way easements allow for the maintenance of right-of-ways areas included within the easements; however, the contractor shall be required to use good judgement and take reasonable care when entering upon such areas. In all cases, respect for the property owner and other stakeholders shall be considered

paramount by the contractor. In sensitive areas such yards, subdivisions, highly maintained areas, posted lands, and similar circumstances, the contractor shall make a good faith effort (when reasonable possible) to inform property owners and/or other stakeholders of the contractor's presence and the general scope of the contractor's work before proceeding. Any situation in which a property owner or complete the work before proceeding. Any situations in which a property owner or other stakeholder takes issue with the contractor's right to enter the property or complete the work shall be reported to CVE's designated representative immediately in order to help facilitate a resolution. All gates, fences and consumer property are to be left in the same condition as found.

CVE provided locks are installed on many locked-gates. The contractor should not cut locks or chains unless permission is granted by the CVE Supervisor. Crews will be provided a CVE key to gain access to areas where a CVE lock is present

- 7.1 The Contractor shall provide the property owner(s) with notification of intent to conduct the required right-of-way clearance and cut stump herbicide application work. This contact shall precede any work done on any property. The work will then be scheduled for each crew. Any line clearance work done without proper notification must have specific approval by the authorized Cumberland Valley representative.
- 7.2 *Verbal notification of the property owner for routine line clearance work is sufficient. If the property owner is not home, a notification card may be left on the door. Notification cards shall only be used where the owner is likely to be present on site on a regular basis. Absentee owners may be notified by mail or by phone.*
- 7.3 In the case of the industrial, municipal, county, state, or large private estate type of properties, the caretakers or other designated individual in the employ of the owners who is responsible for the trees or brush to be cut or trimmed is considered to represent the interest of the owner. Notification of such caretakers or grounds maintenance supervisors is sufficient.
- 7.4 For both bid and hourly crews, the foreman shall contact the designated CVE employees, daily concerning their working locations for their respective crews. Foremen are also to email the information for any members that refuses to allow the crews to properly maintain the ROW. Contractor shall also keep appropriate maps marked to reflect current daily progress for all projects.
- 7.5 If landowner refuses access, Contractor shall notify authorized VE representative immediately.

## Section 8.0 Right of Way Clearing/Re-clearing Requirements

- 8.1 Work within the boundaries of this project shall include clearing/re-clearing. The work may be performed on both urban/residential and rural sites where a specified or desired right-of-way shall be established, reestablished and maintained. Trimming shall adhere to ANSI A300 guidelines and OSHA Safety regulations. If the crown of a tree or any branches are within the right-of-way boundaries, even though the base of the tree is outside of the right-of-way boundary, this tree will be considered as part of the Bid Project and shall be removed or trimmed to meet the guidelines (i.e. overhang from a tree outside of right of way).
- 8.2 Techniques consistent with the practices of directional, natural, lateral, and drop crotch trimming should be utilized. Drop crotch pruning consists of reducing tops, sides, or individual limbs and avoids cutting back to small suckers. Directional pruning or trimming shall be used to direct or train future tree growth or sprouting away from the wires. Tree trimming required on coniferous trees (pine, spruce, hemlock, etc.), along the established tree edge shall involve the removal and/or trimming of limbs that are encroaching the right-of-way. Removal of the limbs will be back to the main stem, trunk, and/or to suitable live lateral branch.
- 8.3 Right of way clearing and tree trimming shall be performed on all primary lines. All tree trimming on right-of-way boundaries shall be ground to sky. Tree removals will be concentrated to trees that may pose a threat to primary lines (i.e. danger trees), trees of a fast growing species (i.e. maples, and poplars) and trees requested by landowners to be removed within the ROW. Trees that are outside of the ROW will be trimmed to obtain proper clearance. Contractors are not responsible for tree removals requested by landowners that are outside of the ROW unless such trees are hazard trees. Emphasis shall be placed on removing trees in the 4-12 inch range, where approval is granted by the property owner. Trees larger than 4-12 inch shall be trimmed if reasonable clearance can be obtained to avoid contact with primary lines until the next trim cycle, unless otherwise requested by the landowner.
- 8.4 Where trimming only is permitted, the lateral or Directional pruning method shall be employed. Clearances following our right of way widths for single and three phase lines shall be obtained wherever possible.
- 8.5 As designated by the authorized CVE representative, fruit bearing trees that remain within the right-of-way shall be trimmed not removed in accordance to the Cumberland Valley Electric right-of-way clearing guidelines unless otherwise notified by the property owner.
- 8.6 Existing right of way consisting of primary lines shall be cleared to meet the clearance standards below. If the existing Right-of-Way is in such condition that the clearances below are already achieved, then no work is needed. In the event that the right-of-way

clearance is not sufficient then work will progress in accordance with these specifications. Normal right of way widths are 30 ft. wide for single and three phase lines.

- 8.7 Individual services will not be the responsibility of the Contractor on Circuit bids. CVE circuits include all right-of-way between the CVE owned pole with transformer and the final CVE owned pole. Clearing of secondary services will be the responsibility of the landowner unless a hazardous situation exists that would not allow them to maintain those lines. If such a hazard exists a service man will be dispatched to trim enough to allow swing clearance of the secondary wire. If a landowner requests to remove a tree near a service wire, CVE will temporarily take down the wire while the landowner resolves the removal of the tree in question.
- 8.8 All overhead guy stubs, anchors, and riser poles, shall be cleared of all vines and vegetation to allow reasonable access to that facility for maintenance and serviceability. Generally, this would include the area within 10 ft. of the pole or equipment.
- 8.9 Mechanical Clearing and Re-Clearing work will be permitted where applicable. After any mechanical operation, if any damages to property exist, the Contractor shall restore the land to the natural contour existing prior to the start of the work (i.e. ruts caused by machinery). This must be accomplished to the satisfaction of CVE and the landowner.
- 8.10 All work is to be performed under the supervision of the contractor. Work shall be conducted in a manner such that all phases of the clearing and/or re-clearing work shall progress concurrently, (i.e. cutting, disposal and final cleanup). CVE has the sole authority to designate the class of right-of-way. If any recent right-of-way clearing/re-clearing is encountered, and it does not conform to these specifications, it must be included in the bid.
- 8.11 Disposal of operation wood residue such as brush, wood, large sections of tree trunks, large limbs, wood chips, and other such products produced or generated by this operation on the CVE system shall not obstruct roads, paths, or waterways. Disposal of said residue shall be the sole responsibility of the Contractor and at approved locations. All disposal costs shall be included in the cost submitted on the CVE bid. Logs and brush may be left "wind-rowed" along the outer edges of the right of way.
- 8.12 Disposal of wood from Yards will consist of the cleanup of all brush and large wood will be cut and stacked. The Contractor will not be responsible for the removal of large wood. Cleanup of wood resulting from the removal of a tree will be the responsibility of the landowner. Disposal of wood and brush in Unmaintained Right of Ways will consist of wind rowing the brush and wood to the outer edge of the right of way.

- 8.13 Members requesting Timber of a merchantable size to be left will be cut in lengths of 100 inches unless otherwise specified by the landowner. The timber will be piled on the edge of the right of way and will become the responsibility of the landowner to remove.
- 8.14 Any dead trees or trees deemed to be a hazard even if beyond the right of way, which would strike the line in falling, shall be removed. Contractors are also responsible for any hazardous trees missed upon inspection and will be sent back to remove these hazards. *(Hazard trees may include but not limited to dead or dying trees, trees with visible cankers or rots, severe leaning trees, and trees with severe animal or mechanical damage showing signs of rot).*
- 8.15 Vines on poles, guy wires, and equipment shall be removed and cut off at ground level and the area surrounding the pole and/or equipment.

### Section 9.0 Options for Refusals/Reluctance to Yield Right-of-Way

- 9.1 Options to modify right-of-way clearing may be offered to individual landowners or groups of adjacent landowners that object to clearing according to the standards indicated by the CVE right-of-way program. In providing these options, CVE seeks to enable individual members to choose methods for right-of-way clearance that best address their concerns while preventing the burden of costs for use of non-standard procedures from being placed upon CVE members as a whole.

Because of varying site conditions, not all options will be offered in all locations. Options that may be available for a particular site include:

#### Stumps:

Stump Grinding will not be used on the CVE system unless authorized by a representative of CVE. If any stump grinding is utilized by CVE, the Contractor will be compensated at an hourly rate.

All woody stem vegetation will be cut as close to the ground line as practical and the cuts shall be made parallel with the ground, not at an angle.

#### Relocation of lines:

Where consistent with CVE standards for line maintenance/improvement, rerouting of lines or moving lines underground at the member's expense will be considered. Rerouting must follow CVE guidelines, and accessibility to the lines must be as good as or better than at the original location. In locations where groups of landowners must agree to rerouting, it is the responsibility of the interested landowners to negotiate agreement with adjacent landowners and obtain necessary easements before rerouting can proceed. If such agreement cannot be obtained within a time frame specified by

CVE, right-of-way clearing will proceed unless other options are negotiated individually with CVE.

#### Section 10.0 Use of Chemicals and Sprays

- 10.1 The Contractor shall ensure that the on-site applicator be certified by the Kentucky Department of Agriculture, Division of Pesticides. Only certified applicator(s) may apply herbicide on Shelby Energy right-of-way. Copies of applicators licenses shall be given to Cumberland Valley prior to starting any projects.
- 10.2 All herbicides used by the contractor shall be approved by Cumberland Valley and used in accordance with the manufacturer's specifications on the label. Herbicides with a National Fire Protection Association (NFPA) health rating of 3 or greater shall not be used on Cumberland Valley's system unless specifically approved by Cumberland Valley Electric. Contractor shall be responsible for purchasing, storing, and furnishing chemicals to its crews.
- 10.3 There will be no herbicide application on National Forest or other State or Federally owned lands unless authorized with proper permits and authorization from the proper manager of those lands.
- 10.4 *All herbicide treatment crews will have the ability to perform foliar and basal chemical treatment where applicable.*
- 10.5 Treatment Around Poles and Guy Wire Attachments- Cut off all vines ascending all poles and guy wires at the height of reach. Treat with herbicides all vines below cutting and other vegetation, which may interfere with CVE's facilities from all poles and guy wires. Should vines be in contact with CVE conductors or equipment the contractor shall notify the Supervisor to have them safely removed.
- 10.6 Herbicide treatment of right of way may be done at various locations using suitable herbicides to control vegetation particular to that location. Prior to commencement of any Work involving the application of chemicals, the Contractor shall thoroughly familiarize and inform himself of all local conditions and other factors which could or might affect herbicide treatment.
- 10.7 Unless otherwise specified by CVE, the Contractor shall mix and apply the herbicides in accordance with the recommendations of the manufacturer's label and the following general specifications:

- (a) For Foliage Application: This method shall be used only on brush during the active plant growth period, generally between May 1 and September 1.

Herbicide mixture shall be applied to completely wet the entire leaf, stem and trunk surface of each plant.

(b) For Basal Application: This method shall be used on brush of any size at any season of the year. Herbicide mixture shall be applied to completely wet the entire surface of the stem or trunk from the root-crown up the stem eighteen (18) inches, with emphasis on completely wetting the root-crown.

(c) For Stump Application: This method shall be used on all new stumps at any season of the year. Stumps shall be treated as soon as practical, but always on the same day that the cutting is performed. Herbicide mixture shall be applied in sufficient volume to completely wet the sapwood, the area around the outer edge of stump.

- 10.8 Contractor shall not be obligated to treat any portion of a line where damages to crops, orchards, or ornamental plants may result from chemical drift.
- 10.9 CVE will have the right to specify when and where herbicide application and/or herbicide treatment will be used in rural areas or otherwise.
- 10.10 Contractor's use of herbicides in connection with the Work shall be in strict compliance with all federal and state laws, rules and regulations which from time to time govern the use of herbicides. By undertaking to perform any part of the Work in which chemicals are used, the Contractor certifies that Contractor is familiar with, has complied with, and at all times will comply with all requirements (including but not limited to those relating to training and the giving and posting of all required notices) under all of the foregoing laws, rules and regulations and further, the Contractor shall indemnify and hold harmless CVE and its directors, officers, employees and agents from and against any liability, claim, demand, cause of action of every kind and description, damage, losses and expenses, including attorney's fees through appeals, arising or resulting from the Contractor's non-compliance with or violation of any of the foregoing laws, rules or regulations.
- 10.11 Chemical spills shall be immediately cleaned-up in a manner consistent with label restrictions, Federal and State regulations, and acceptable environmental procedures mandated by law. Any and all notifications to proper authorities in connection with such spills shall be made by the Contractor. Each crew responsible for herbicide applications shall be supplied with a suitable spill response kit for cleaning-up and neutralizing spills of chemicals, all at the sole expense of the Contractor. Contractor shall insure that its employees are trained in the proper techniques for spill response, and are supplied with the necessary personal protective equipment required to perform spill mitigation duties.
- 10.12 Contractor shall at all times be solely responsible for the continuous safeguarding of its workforce, including compliance with all applicable Federal, State, and local laws together with its responsibilities for training its employees in the proper methods and use of personal protective equipment required for handling herbicides used in connection with this Work.

## Section 11.0 Safety to Employees and the Public

Contractor shall at all times take all reasonable precautions for the safety of its employees and the public, and shall comply with all applicable provisions of federal, state and local laws, rules and regulations, including but not limited to the most current version of the National Electric Safety Code, all OSHA rules, and the Cumberland Valley Electric safety manual. Contractor shall have a Safety program in place and will produce documentation of Safety training, audits, or other necessary documents upon request.

CVE reserves the right to stop the contractor's work immediately if CVE becomes aware that the contractor is in violation of any of the above mentioned safety requirements, and CVE reserves the right to terminate the contract due to safety concerns at its sole discretions. CVE further reserves the right to inspect contractor work sites at its discretion.

The Contractor is required to furnish CVE with all documentation in a timely manner (when and if requested by CVE) concerning safety requirements, investigations or any other information about the crews working on CVE's system. The contractor must provide a written report to CVE for any OSHA reportable injury or violation, and any "near-miss" incident or accident must be promptly reported to the CVE Supervisor.

- 11.1 The contractor shall obtain full information from CVE as to the voltage of its circuits before starting the various parts of the work.
- 11.2 The Contractor shall at all times conduct the work in a manner as to safeguard the public from injury to persons or property, and shall comply with the regulations set forth in OSHA 1910.269, OSHA 1910.331, OSHA 1910.266 Logging Standard and ANSI Z133.1-1994. All provisions of CVE safety policy, as detailed in the CVE Safety Manual, further apply to all contractors on Cumberland Valley Electric.
- 11.3 The contractor shall use all necessary protection for its employees and to guard against interference with the normal operation of the circuits. If, in the judgment of the Contractor's General Foreman/Supervisor, it is hazardous to trim or remove trees with the circuits energized, the authorized CVE representative(s) shall be contacted. If deemed appropriate, the necessary protection or de-energizing the circuits will be provided by CVE to ensure the safe removal of the affected tree parts.
- 11.4 When applying herbicides, the contractor shall at all times take all reasonable precautions for the safety of employees on the work and of the public by utilizing safety equipment and methods in accordance with the manufacturer's specifications on the herbicide label. Contractor shall comply with all applicable provisions of Federal, State, and local laws specifically including 302 KAR Chapters 27, 28 and 29 relating to the use and application of herbicides. Contractor will furnish copies of any required licenses, certifications or permits to CVE upon request.

## Section 12.0 Work Assignments and Equipment

- 12.1 The Contractor shall advise CVE on a daily basis as to the location of all crews, any and all crew movements throughout the day, the progress of the Work assigned, and any problems or unusual occurrences. CVE will furnish systems maps or digital aerial/GPS files to the contract ROW foreman or supervisor for the purpose of locating and recording all work done on CVE's system. After work has been completed in a particular area the paper maps or digital files should be returned to CVE's Supervisor.
- 12.2 Contractor shall make available its crews for emergency work as determined by CVE, day or night, weekends, holidays, or during any natural disasters such as ice or snow storms, tornadoes and other strong storms, etc. Contractor shall furnish an emergency work price list to CVE along with their bid. Contractor shall furnish CVE the name and telephone number of the person to contact for emergency crews. Contractor may be asked to assign additional crews to CVE's system if the emergency is severe or of long duration.
- 12.3 Contractor shall submit to CVE a progress report at the end of each week.
- 12.4 Reasonable working hours shall be utilized for lump sum cost for circuit work. Contractor shall be free to determine working days and hours to suit his needs with the following exceptions. There shall be no work on Saturday or Sunday and on CVE designated holidays without approval by a designated CVE representative. In general, the normal workweek for lump sum work should consist of forty (40) productive hours between 7:00am and 6:00pm, Monday through Friday, unless otherwise approved by CVE. The workday shall begin at the designated assembly location and end at the work site.
- 12.5 CVE properties will not be made available for the Contractor for crew starting points or for storing/garaging tools or equipment, unless authorized by CVE. When convenient, the contractor may be given permission to park vehicles and equipment of CVE property. Contractors may not park at substation property owned by East Kentucky Power (EKP) without written permission from EKP. When parking equipment in the field the contractor is responsible for obtaining permission from the land owners.
- 12.6 CVE shall not be charged for time spent on maintenance of equipment, including without limitation fueling of vehicles, oil or antifreeze changes, changing and/or sharpening of chipper blades, and other similar maintenance and repair work. CVE will not render payment for equipment that is incapable of fully performing its intended function. Minor mechanical repairs such as sharpening and adjusting chain saws shall be permitted on CVE time.
- 12.7 Equipment must be maintained in above average condition and with little or no oil leaks. CVE shall have the right to request that equipment which does not meet the approval of CVE be replaced. The decision of CVE shall be final.

### **Section 13.0 Supervision of Work and Workmanship**

- 13.1 Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over constructions means, methods, techniques, and procedures.
- 13.2 Contractor is an independent contractor and neither Contractor nor any of its employees shall be deemed to be agents or employees of CVE.
- 13.3 The Contractor shall give prior notification of work start-up and when adding or changing crew. Complete the necessary reporting forms as needed. All reports, logs, timesheets, and paperwork shall be accurate, neat, and complete. Exaggerated, padded or incorrect work report entries may result in the dismissal of the crew foreman and/or general foreman/supervisor. The crew foreman and/or supervisor shall maintain an up-to-date log of all property owner notification and/or refusals.
- 13.4 Contractor shall provide and maintain continually on the site of the Work during its progress and until its completion, adequate and competent supervision of all operations for and in connection with the Work being performed under this Contract, either personally or by a duly authorized representative. The General Foreman or other representative of the Contractor, who has charge of the Work thereof, shall be fully authorized to act for the Contractor and to receive whatever orders as may be given for the proper execution of the Work or notices in connection therewith.
- 13.5 Contractor shall employ only workers who are competent to perform the Work assigned to them and who are adequately trained and experienced in performing first-class Work of the character and magnitude required by this Contract and expected of reputable Contractor's performing work similar to the Work necessary under this Contract.
- 13.6 CVE will periodically review and evaluate crew performance based upon factors such as, but not limited to, quality of work, quantity of work, clearances obtained, safety awareness and public relations efforts.
- 13.7 Contractor shall be required to attend regular progress meetings with CVE to discuss the Work of this Contract, review crew evaluations, receive information as to future work locations for planning purposes and discuss any problems in prosecuting the Work under this Contract.
- 13.8 CVE will furnish a designated employee to oversee all aspects of line clearing while contract crews are working on CVE's system. Any and all questions that may arise should be brought before this designated person for resolution. CVE's representative will strive to provide answers to contractor questions and/or requests in a timely manner (usually within two or three business days).

## **Section 14.0 Contractor Caused Outages**

- 14.1 Anytime the Contractor feels that work cannot be completed safely or an outage due to work associated with the clearing of the right of way is unavoidable he should ask for an outage to be scheduled by our line crews. We will have no problem with scheduling an outage to make the job safe.
- 14.2 Should the Contractor knock down or come in contact with CVE's conductors or equipment they must immediately contact the supervisor.
- 14.3 If a Contract Crew causes an outage, that entire crew shall "Stand Down" and will not be permitted to work on the CVE system until the completion of an incident investigation. Upon completion of the investigation, the crew may return to work as determined by CVE and depending on the findings of the investigation. This will allow the contractor and CVE sufficient time to investigate and take any necessary actions to insure future outages will be avoided.

## **Section 15.0 Payment for Work**

- 15.1 The Contractor will be required to utilize daily time sheets provided by or approved by CVE. Timesheets will be accurate, neat and complete, and shall detail time charged to individual work and service orders.
- 15.2 In order to receive payment for any Combination Lump Sum/Unit Price bid work the Contractor must supply with invoices a weekly detailed list of units cleared or trimmed and the location of these units. Inspection for accuracy shall be done by a representative of CVE before payment.
- 15.3 When overtime is applicable, the rate will be 1.5 times the regular hourly rate for labor; however, overtime rates will not be charged for equipment prices. Overtime billed for emergency/storm work will be applicable for hours that exceed 40 hours in a week.

If the owner requests the contractor to bring in extra temporary workers or equipment for emergency situations such as additional work or storm restorations the owner and contractor shall negotiate rates and any special terms/conditions for those extra workers and equipment at the time the request is made. All other terms/conditions applying to temporary workers or equipment at the time the request is made. All other terms/ conditions applying to temporary workers or equipment not changed by mutual agreement of the parties in writing shall be as stated in the contract.

It is understood that by both parties that the hourly rates included in this contract are complete charges and there is no extra charge per man (per Diem) charge.

## **Section 16.0 Indemnification**

To the maximum extent permitted by law, Contractor shall defend, indemnify, and hold harmless Owner and Owner's directors, officers, and employees from all claims, causes of action, losses and liabilities, and expenses (including reasonable attorney's fees) for personal loss, injury, or death to persons (including but not limited to Contractor's.

employees) and loss, damage to or destruction of Owner's property or the property of any other person or entity (including but not limited to Contractor's property) in any manner arising out of or connected with the Contract or the materials or equipment supplied or services performed by Contractor, its subcontractors and suppliers of any tier. But nothing herein shall be construed as making Contractor liable for any injury, death, loss, damage, or destruction caused by the sole negligence of Owner.

#### **Section 17.0 Hold Harmless**

Contractor agrees to defend, pay on behalf of, and hold harmless CVE and its directors, officer, agents, members and employees, from all claims, demands, causes of action, damages, costs, or liabilities, in law or in equity, of every kind of nature whatsoever, including but not limited to those brought by employees of Contractor or its subcontractors, and those brought as a result of any interruption, discontinuance, or interference with CVE's service to any of its customers, arising out of or as a result of any act or failure to act, whether or not negligent, in connection with the performance of the work to be performed pursuant to this proposal by Contractor its directors, officers, agents, employees, and subcontractors. Contractor agrees to defend and pay all costs in defending these claims, demands, causes of action, damages, costs, or liabilities, including attorney's fees, and Contractor shall also reimburse CVE for any and all legal and other expenses incurred by Cumberland Valley Electric in connection therewith.

Furthermore, Contractor agrees to maintain public liability and property damage insurance (including automobile public liability and property damage insurance) to cover the obligations set forth above. The minimum insurance limits of liability shall be \$500,000.00 automobile public liability and property damage and \$1,000,000.00 for all other public liability and property damage.

The policy must state that Contractor has contractual liability coverage and that CVE has been added as an additional insured. Contractor and any subcontractor shall carry workers' compensation insurance as required by law. CVE shall receive a minimum thirty (30) day notice in the event of cancellation of insurance required by the agreement. Contractor shall furnish a certificate of insurance to CVE showing that the above obligations and requirements are provided for by a qualified insurance carrier, and showing CVE as an additional insured on such insurance annually prior to January 1 of the insured calendar year. It shall be the contractor's responsibility to provide CVE with a new proof prior to the expiration of the current proof.

#### **Section 18.0 Independent Contractor**

Contractor hereby acknowledges that it is an independent contractor for Cumberland Valley Electric. Contractor shall be free to determine and control its time, energy and skill to perform the work in accordance with this Agreement.

Contractor acknowledges that CVE, in reliance upon this Agreement, is not withholding any taxes from sums paid to Contractor as compensation for services rendered under this Agreement. Additionally, Contractor acknowledges that CVE is not carrying worker's

compensation coverage or unemployment insurance coverage on Contractor or Contractor's employees due to the independent Contractor nature of the relationship. In the event Contractor should be adjudged not to be an independent Contractor, Contractor will indemnify CVE for any additional expenses resulting from such ruling.