

Kenneth E. Simmons, President & CEO

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# APR 06 2020

PUBLIC SERVICE COMMISSION

April 6, 2020

Kent Chandler Executive Director Public Service Commission 211 Sower Boulevard Frankfort, Kentucky 40602

RE: Case No. 2011-00450

Dear Mr. Chandler:

Enclosed is South Kentucky's Electric Distribution Utility Annual Reliability Reports submitted pursuant to the above referenced case.

Please contact me if you have any questions.

Sincerely,

Kevin Newton South Kentucky R.E.C.C. Vice President of Operations

KN:jcg

Enclosures

# Electric Distribution Utility Annual Reliability Report

# **SECTION 1: CONTACT INFORMATION**

UTILITY NAME REPORT PREPARED BY E-MAIL ADDRESS OF PREPARER PHONE NUMBER OF PREPARER South Kentucky RECC Dakota Brown dakotab@skrecc.com 606-875-3262

## SECTION 2: REPORTING YEAR

CALENDAR YEAR OF REPORT

2019

### SECTION 3: MAJOR EVENT DAYS (MED)

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

25.91	
1/1/2019	_
12/31/2019	-
3	_

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

	Syst	em-wide Inform	nation
TOTAL CUST	OMERS 68950		TOTAL CIRCUITS 143
		Excluding ME	D
	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	203.97	SAIDI	222.564
SAIFI	1.9018	SAIFI	2.4136
		Including MED	)
	5 YEAR AVERAGE		REPORTING YEAR
	200 2040		205 070

 5 YEAR AVERAGE
 REPORTING YEAR

 SAIDI
 309.2616
 SAIDI
 385.878

 SAIFI
 2.1085
 SAIFI
 2.8128

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  $T_{MED}$ 

# 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
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
- 3. CIRCUIT NAME AND NUMBER
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
- 5. TOTAL CIRCUIT LENGTH (MILES)
- 6. CUSTOMER COUNT FOR THIS CIRCUIT
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
- 8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE N NUMBERS REPRESENTED BY EACH CAUSE
- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
- 10. REPORTING YEAR (SAIDI)
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
- 12. REPORTING YEAR (SAIFI)
- 13. CORRECTIVE ACTION PLAN

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

\*\*CIRCUIT REPORTING INFORMATION ATTACHED IN SPREADSHEET "PSC\_ANNUAL\_DISTRIBUTION\_RELIABILITY\_CKT INFO"

## SECTION 6: VEGETATION MANAGEMENT PLAN REVIEW

#### INCLUDE CURRENT VEGETATION MANAGEMENT PLAN

Additional page may be attached as needed.

#### Review of the 2019 VMP

### Introduction:

SKRECC has had a formally written VMP in place since the year 2007. In prior years, South Kentucky RECC did not have a formerly written VMP; however, we did have established goals and objectives that were being monitored and administered by the Right-of-Way Manager.

### Herbicidal Spraying:

For the year 2019, South Kentucky RECC accomplished approximately 889 miles of Herbicidal Spraying.

### Cycle Trimming:

For the year 2019, South Kentucky RECC accomplished approximately 465 miles of circuit Trimming.

### Other Trimming and Cutting:

South Kentucky RECC Right-of-Way was able to complete appromately 2,139 individual workorders for trimming and other ROW work relations at various locations across the entire system. These were primarily places near the member's homes that involved yard trees or other special situations, but included the full range of right-of-way work that is typical for a rural electric system.

#### **Conclusions:**

At the end of 2019, we feel that our Right-of-Way plan was implemented appropriately, but will continue to look for ways to improve in both cost containment and effectiveness of methods. We are evaluating the data that is contained in the annual reliability report to the PSC and will consider the worst performing circuits to see if any changes in our right-of-way plans are needed to help improve reliability on those circuits.

\*\*SKRECC'S CURRENT VEGETATION MANAGEMENT PLAN ATTACHED "VEGETATION MANAGEMENT PLAN - 2016"

# SECTION 7: UTILITY COMMENTS

South Kentucky RECC strives to provide its members with safe and reliable electric. The following report provides statistics to indicate outage causes and durations affecting SKRECC's reliability measures. Within the report, trees are calculated as the dominant source of outage causes in the SKRECC service territory. As with majority of Rural Electric Cooperatives, the result of long feeders and more exposure induces a significant impact on outage duration (SAIDI) and frequency (SAIFI).

Typically, our outage situations are caused by rural tree lined right of ways. Over the years, we've acknowledged these tree lined right of ways and have taken notion to attempt to move the line out of the tree line to a better location. In 2019, approximately 84 circuits, 58% of our feeders exceeded their 5 year SAIDI & SAIFI average. This is an increase from our 2018 statistics that indicated 52% of feeders exceeding their average. With this attestation, we plan to review our circuit trimming list for 2020/2021 and possibly even fixate on the circuits determined as worst performing in this report.

We should also note that many of the tree indicated statistics were most likely during storm situations. During these situations, the dispatcher is responsible for categorizing these situations and may or may not receive any details regarding the circumstance. Often times, during a storm situation, an outage may be categorized as trees when in fact it may also qualify as wind or lightning.

We will recognize these measures and will determine steps for improvement and precautions regarding future outage concerns.

#### 33.858 Avg. 2015-2019

25.913131

-2.1267 2.15258  $\mathbf{T}_{\mathsf{MED}}$ 

	System				alpha beta
date	Customers	cons min/day	SAIDI	Ln(SAIDI)	
1/1/2019	68950	19909.26667	0.288749	-1.2422	
1/10/2019	68950	18399.68333	0.266855	-1.32105	
1/11/2019	68950	49068.33333	0.711651	-0.34017	
1/12/2019	68950	180051.2	2.61133	0.95986	
1/13/2019	68950	157266.3	2.280875	0.824559	
1/14/2019	68950	3908.25	0.056682	-2.87029	
1/15/2019	68950 68950	6888.266666 1045.233333	0.099902 0.015159	-2.30356 -4.18914	
1/17/2019	68950	220.0166667	0.003191	-5.74743	
1/18/2019	68950	116.95	0.001696	-6.37939	
1/19/2019	68950	49537.85	0.71846	-0.33064	
1/2/2019	68950	6642.466667	0.096337	-2.3399	
1/20/2019	68950	121211.4833	1.757962	0.564155	
1/21/2019	68950	5645.7	0.081881	-2.50249	
1/22/2019	68950	189.05	0.002742	-5.89913	
1/23/2019	68950	76432.05	1.108514	0.103021	
1/24/2019	68950	24213.81667	0.351179	-1.04646	
1/25/2019	68950	159.7	0.002316	-6.06784	
1/26/2019	68950	100422.3167	1.456451	0.376003	
1/28/2019	68950	23561.16667	0.341714	-1.07378	
1/29/2019	68950	325	0.004714	-5.35731	
1/3/2019	68950	22262.76667	0.322883	-1.13047	
1/30/2019	68950	558.7166666	0.008103	-4.81549	
1/31/2019	68950	3002.3	0.043543	-3.134	
1/4/2019	68950	235.7166667	0.003419	-5.67851	
1/5/2019	68950	7622.2	0.110547	-2.20232	
1/6/2019	68950	6317.933333	0.091631	-2.38999	
1/7/2019	68950	18611.73333	0.269931	-1.30959	
1/8/2019	68950	51533.96666	0.747411 0.052321	-0.29114	
1/9/2019	68950 68950	3607.55 819.3333333	0.052321	-2.95035 -4.43265	
10/10/2019	68950	1869.8666667	0.011883	-3.60751	
10/11/2019	68950	4659.583333	0.027113	-2.69446	
10/12/2019	68950	645316.1833	9.35919	2.236359	
10/13/2019	68950	359.6333334	0.005216	-5.25605	
10/14/2019	68950	5895.183333	0.085499	-2.45925	
10/15/2019	68950	7352.75	0.106639	-2.23831	
10/16/2019	68950	104196.1333	1.511184	0.412893	
10/17/2019	68950	675.0666667	0.009791	-4.62633	
10/18/2019	68950	7802.966667	0.113168	-2.17888	
10/19/2019	68950	791.5	0.011479	-4.46721	
10/2/2019	68950	67808.53333	0.983445	-0.01669	
10/20/2019	68950	6922.066667	0.100393	-2.29867	
10/21/2019	68950	4223.283333	0.061251	-2.79277	
10/22/2019	68950	9900.483334	0.143589	-1.9408	
10/23/2019	68950	5635.266667	0.08173	-2.50434	
10/24/2019	68950	4347.666667	0.063055	-2.76374	
10/25/2019	68950	5060.016667	0.073387	-2.61201	
10/26/2019	68950	188860.9	2.739099	1.007629	
10/27/2019	68950	27536.01667 16834.7	0.399362	-0.91789	
10/28/2019	68950			-1.40994	
10/29/2019	68950 68950	338.7 13611.21667	0.004912 0.197407	-5.31602 -1.62249	
10/3/2019	68950	3355.1	0.197407	-3.0229	
10/30/2019	68950	74773.8	1.084464	0.081086	
10/4/2019	68950	4392.916666	0.063712	-2.75339	
10/5/2019	68950	14284.36667	0.20717	-1.57422	
10/6/2019	68950	4834.083333	0.07011	-2.65769	
10/7/2019	68950	249803.9667	3.622973	1.287295	
10/9/2019	68950	45691.81667	0.66268	-0.41146	
11/1/2019	68950	4930.9	0.071514	-2.63786	
11/10/2019	68950	50.86666667	0.000738	-7.21193	
11/11/2019	68950	8252.2	0.119684	-2.1229	
11/12/2019	68950	6827.366666	0.099019	-2.31244	
11/13/2019	68950	386.65	0.005608	-5.18362	
11/14/2019	68950	3656.966667	0.053038	-2.93675	
11/15/2019	68950	7414.166667	0.10753	-2.22999	
11/16/2019	68950	888	0.012879	-4.35217	
11/17/2019	68950	75.93333333	0.001101	-6.81128	
11/18/2019	68950	439.6833333	0.006377	-5.05508	
11/19/2019	68950	5341.916667	0.077475	-2.5578	
11/2/2019	68950	1247.066667	0.018087	-4.01259	
11/20/2019	68950	15309.65	0.22204	-1.5049	
11/21/2019	68950	71669.11667	1.039436	0.038678	
11/22/2019	68950	5235.6	0.075933	-2.5779	
11/23/2019	68950	46818.38333	0.679019	-0.38711	
11/24/2019 11/25/2019	68950 68950	2747.1 53129.68333	0.039842 0.770554	-3.22284 -0.26065	
11/25/2019	68950 68950			-0.26065	
11/20/2019	00930	0211.000000	0.110002	2.12030	

16.83       2015         35.15       2016         66.74       2017         24.66       2018         25.91       2019         169.29       33.858         33.858       Avg.					
35.15         2016           66.74         2017           24.66         2018           25.91         2019           169.29         2019					
66.74         2017           24.66         2018           25.91         2019           169.29         2019	16.83		2015		
24.66 2018 25.91 2019 169.29	35.15		2016		
25.91 2019 169.29	66.74		2017		
169.29	24.66		2018		
	25.91		2019		
33.858 Avg.	169.29				
	33.858	Avg.			

11/27/2019				
	68950	295596.3333	4.287111	1.455613
11/28/2019	68950	60156.06666	0.872459	-0.13644
11/29/2019	68950	513.8666667	0.007453	-4.89917
11/3/2019	68950	1578.95	0.0229	-3.77662
11/30/2019	68950	135270.0333	1.961857	0.673891
11/4/2019	68950	5128.766667	0.074384	-2.59852
11/5/2019	68950	2281.916667	0.033095	-3.40837
11/6/2019 11/7/2019	68950 68950	12359.46667 7579.800001	0.179253 0.109932	-1.71896 -2.20789
11/8/2019	68950	1612.833333	0.023391	-3.75539
11/9/2019	68950	926.0499999	0.013431	-4.31021
12/1/2019	68950	85829.81667	1.244812	0.218985
12/10/2019	68950	126924.4833	1.840819	0.610211
12/11/2019	68950	7362.816667	0.106785	-2.23694
12/12/2019	68950	1132.45	0.016424	-4.109
12/13/2019 12/14/2019	68950	29371.45	0.425982	-0.85336
12/14/2019	68950 68950	11354.8 2921.483333	0.164682 0.042371	-1.80374 -3.16129
12/16/2019	68950	512147.1667	7.427805	2.00523
12/17/2019	68950	1149.516667	0.016672	-4.09404
12/18/2019	68950	8663.766667	0.125653	-2.07423
12/19/2019	68950	289386.2333	4.197045	1.434381
12/2/2019	68950	28121.98333	0.407861	-0.89683
12/20/2019	68950	16744.26667	0.242847	-1.41533
12/21/2019	68950	697177.3167	10.11135	2.313658
12/22/2019 12/23/2019	68950 68950	3069.416667 516.1833333	0.044517 0.007486	-4.89467
12/24/2019	68950	39312.63333	0.570161	-0.56184
12/25/2019	68950	1573.266667	0.022818	-3.78023
12/26/2019	68950	6420.383333	0.093117	-2.3739
12/27/2019	68950	1082.55	0.015701	-4.15406
12/28/2019	68950	119.6166667	0.001735	-6.35684
12/29/2019	68950	2035.216667	0.029517	-3.52278
12/3/2019	68950	7226.766667	0.104812	-2.25559
12/30/2019 12/31/2019	68950 68950	128750.3 93.4	1.867299 0.001355	0.624493 -6.60425
12/4/2019	68950	675.4	0.009796	-4.62583
12/5/2019	68950	2771.45	0.040195	-3.21401
12/6/2019	68950	3873.466667	0.056178	-2.87923
12/7/2019	68950	500.9166667	0.007265	-4.9247
12/8/2019	68950	3632.666667	0.052686	-2.94341
12/9/2019	68950	22134.66667	0.321025	-1.13624
2/1/2019 2/10/2019	68950 68950	1421.733333 392	0.02062	-3.8815 -5.16988
2/10/2019	68950	2375.4	0.003085	-3.36822
2/12/2019	68950	122062.2	1.7703	0.571149
2/13/2019	68950	16358.46667	0.237251	-1.43864
2/14/2019	68950	2900.516666	0.042067	-3.16849
2/15/2019	68950	46828.31667	0.679163	-0.38689
2/16/2019 2/18/2019	68950 68950	176.3 1184.166667	0.002557 0.017174	-5.96895 -4.06434
2/10/2019	00950		0.017174	-4.00434
2/19/2019	68950	3350.6	0.048595	-3 02424
	68950 68950	3350.6 165799.9167	0.048595 2.40464	-3.02424 0.8774
2/20/2019	68950 68950 68950	3350.6 165799.9167 8513.733331	0.048595 2.40464 0.123477	
2/20/2019 2/21/2019	68950	165799.9167	2.40464	0.8774 -2.0917 -2.97124
2/20/2019 2/21/2019 2/22/2019 2/23/2019	68950 68950 68950 68950	165799.9167 8513.733331 3532.966667 8096.416667	2.40464 0.123477 0.05124 0.117424	0.8774 -2.0917 -2.97124 -2.14196
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019	68950 68950 68950 68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667	2.40464 0.123477 0.05124 0.117424 6.490108	0.8774 -2.0917 -2.97124 -2.14196 1.870279
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019	68950 68950 68950 68950 68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/26/2019	68950 68950 68950 68950 68950 68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.118467	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/23/2019 2/24/2019 2/25/2019 2/26/2019 2/27/2019	68950 68950 68950 68950 68950 68950 68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.118467 0.323986	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.12705
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/26/2019 2/27/2019 2/27/2019 2/28/2019	68950 68950 68950 68950 68950 68950 68950 68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.118467 0.323986 0.732705	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.12705 -0.31101
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/26/2019 2/27/2019 2/27/2019 2/28/2019 2/5/2019	68950 68950 68950 68950 68950 68950 68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.118467 0.323986	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.12705
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/26/2019 2/26/2019 2/28/2019 2/5/2019 2/5/2019 2/6/2019 2/7/2019	68950 68950 68950 68950 68950 68950 68950 68950 68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.118467 0.323986 0.732705 0.001511	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.12705 -0.31101 -6.49482
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/26/2019 2/26/2019 2/28/2019 2/5/2019 2/6/2019 2/6/2019 2/7/2019 2/8/2019	68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.63333 231696.3167 2016	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.118467 0.323986 0.732705 0.001511 0.050481 3.360353 0.029239	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/25/2019 2/27/2019 2/28/2019 2/5/2019 2/6/2019 2/7/2019 2/8/2019 2/8/2019	68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.633333 231696.3167 2016 7592.916667	2.40464 0.123477 0.05124 0.17424 6.490108 0.120645 0.118467 0.323986 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/25/2019 2/26/2019 2/27/2019 2/5/2019 2/6/2019 2/6/2019 2/8/2019 2/8/2019 3/1/2019	68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.633333 231696.3167 2016 7592.916667 210.65	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.118467 0.323986 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -5.79094
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/23/2019 2/25/2019 2/25/2019 2/26/2019 2/27/2019 2/5/2019 2/5/2019 2/5/2019 2/6/2019 2/8/2019 2/9/2019 3/1/2019 3/10/2019	68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.63333 231696.3167 2016 7592.916667 210.65 278.833333	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.118467 0.323986 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.004044	0.8774 -2.0917 -2.97124 -2.14196 -2.14191 -2.13312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -5.79094 -5.51052
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/23/2019 2/24/2019 2/26/2019 2/26/2019 2/27/2019 2/28/2019 2/6/2019 2/7/2019 2/8/2019 2/9/2019 3/1/2019 3/10/2019 3/11/2019	68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.63333 231696.3167 2016 7592.916667 210.65 278.833333 2227.7	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.118467 0.323986 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.004044 0.032309	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -5.79094 -5.51052 -3.43241
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/26/2019 2/26/2019 2/27/2019 2/6/2019 2/6/2019 2/7/2019 2/8/2019 2/8/2019 3/10/2019 3/10/2019 3/11/2019	68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.26666 22338.86667 50520.01667 104.2 3480.633333 231696.3167 2016 7592.916667 210.665 278.833333 2227.7 195394.5833	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.132986 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.004044 0.032309 2.833859	0.8774 -2.0917 -2.97124 -2.14196 -2.14191 -2.13312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -5.79094 -5.51052
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/25/2019 2/26/2019 2/28/2019 2/5/2019 2/6/2019 2/6/2019 2/8/2019 3/1/2019 3/1/2019 3/11/2019 3/14/2019 3/14/2019	68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.63333 231696.3167 2016 7592.916667 210.65 278.833333 2227.7	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.118467 0.323986 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.004044 0.032309	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.1312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -5.79094 -5.51052 -3.43241 1.041639
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/25/2019 2/27/2019 2/27/2019 2/28/2019 2/6/2019 2/7/2019 3/1/2019 3/10/2019 3/11/2019 3/14/2019 3/15/2019 3/15/2019	68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.633333 231696.3167 2016 7592.916667 210.65 278.833333 2227.7 195394.5833 898.5	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.118467 0.323986 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.004044 0.032309 2.833859 0.013031	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -5.79094 -5.51052 -3.43241 1.041639 -4.34041
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/24/2019 2/26/2019 2/26/2019 2/26/2019 2/27/2019 2/6/2019 2/6/2019 2/7/2019 3/10/2019 3/10/2019 3/11/2019 3/14/2019 3/14/2019 3/18/2019 3/18/2019	68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.63333 231696.3167 2016 7592.916667 210.66 278.833333 2227.7 195394.5833 898.5 63.15 535.3 3593.85	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.132886 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.004044 0.032309 2.833859 0.013031 0.00916 0.007764 0.052123	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -5.51052 -3.43241 1.041639 -4.34041 -6.99562 -4.85831 -2.95416
2/20/2019 2/21/2019 2/22/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/27/2019 2/27/2019 2/28/2019 2/5/2019 2/6/2019 2/6/2019 3/10/2019 3/11/2019 3/11/2019 3/11/2019 3/15/2019 3/18/2019 3/19/2019 3/19/2019	68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.633333 231696.3167 2016 7592.916667 210.65 278.833333 2227.7 195394.5833 898.5 63.15 535.3 3593.85 94.666666667	2.40464 0.123477 0.05124 6.490108 0.120645 0.118467 0.323986 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.004044 0.32309 2.833859 0.013031 0.00916 0.007764 0.052123 0.001373	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.1272 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -5.79094 -5.51052 -3.43241 1.041639 -4.34041 -6.99562 -4.85831 -2.95416 -6.59077
2/20/2019 2/21/2019 2/22/2019 2/22/2019 2/24/2019 2/25/2019 2/25/2019 2/26/2019 2/26/2019 2/28/2019 2/6/2019 2/8/2019 3/1/2019 3/1/2019 3/11/2019 3/14/2019 3/15/2019 3/15/2019 3/19/2019 3/19/2019 3/20/2019	68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.633333 231696.3167 210.65 278.833333 2227.7 195394.5833 898.5 63.15 535.3 3593.85 94.666666667 1530.183333	2.40464 0.123477 0.05124 0.117424 6.490108 0.722705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.004044 0.032309 2.833859 0.013031 0.00916 0.007764 0.052123 0.001373 0.022193	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -5.79094 -5.51052 -3.43241 1.041639 -4.34041 -6.99562 -4.85831 -2.95416 -6.59077 -3.80799
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/25/2019 2/26/2019 2/27/2019 2/28/2019 2/2/2019 2/7/2019 3/1/2019 3/12/019 3/14/2019 3/15/2019 3/15/2019 3/15/2019 3/15/2019 3/12/2019 3/2/2019 3/20/2019 3/20/2019	68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.633333 231696.3167 2016 7592.916667 210.65 278.833333 2227.7 195394.5833 898.5 63.15 535.3 3593.85 94.66666667 1530.183333 69888.73333	2.40464 0.123477 0.05124 0.490108 0.120645 0.118467 0.323986 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.004044 0.032309 2.833859 0.013031 0.00916 0.007764 0.052123 0.001373 0.022193 1.013615	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -5.79094 -5.51052 -3.43241 1.041639 -4.34041 -6.99562 -4.85831 -2.95416 6.659077 -3.80799 0.013523
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/26/2019 2/26/2019 2/27/2019 2/27/2019 2/6/2019 2/7/2019 2/8/2019 3/10/2019 3/11/2019 3/14/2019 3/14/2019 3/15/2019 3/15/2019 3/18/2019 3/12/2019 3/22/2019	68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.633333 231696.3167 210.65 278.833333 2227.7 195394.5833 898.5 63.15 535.3 3593.85 94.666666667 1530.183333	2.40464 0.123477 0.05124 0.117424 6.490108 0.722705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.004044 0.032309 2.833859 0.013031 0.00916 0.007764 0.052123 0.001373 0.022193	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.1312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -3.53227 -2.20617 -5.79094 -5.51054 -5.51054 -3.43241 1.041639 -4.39562 -4.85831 -2.95416 -6.59077 -3.80799 0.013523 -0.52887
2/19/2019 2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/23/2019 2/25/2019 2/25/2019 2/26/2019 2/26/2019 2/5/2019 2/6/2019 2/6/2019 2/6/2019 3/10/2019 3/10/2019 3/11/2019 3/14/2019 3/15/2019 3/15/2019 3/15/2019 3/12/2019 3/20/2019 3/20/2019 3/21/2019 3/22/2019 3/22/2019 3/22/2019	68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.63333 231696.3167 2016 7592.916667 210.65 278.833333 2227.7 195394.5833 898.5 63.15 535.3 3593.85 94.66666667 1530.18333 69888.73333 40630.18333	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.323986 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.04044 0.032309 2.833859 0.013031 0.00916 0.007764 0.052123 0.0022193 0.022193 1.013615 0.58927	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -5.79094 -5.51052 -3.43241 1.041639 -4.34041 -6.99562 -4.85831 -2.95416 6.659077 -3.80799 0.013523
2/20/2019 2/21/2019 2/22/2019 2/22/2019 2/23/2019 2/25/2019 2/25/2019 2/27/2019 2/28/2019 2/28/2019 2/6/2019 2/6/2019 2/8/2019 3/1/2019 3/11/2019 3/11/2019 3/14/2019 3/15/2019 3/15/2019 3/15/2019 3/19/2019 3/2019 3/2/2019 3/2/2019 3/22/2019 3/22/2019	68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.633333 231696.3167 2016 7592.916667 210.65 278.833333 2227.7 195394.5833 898.5 63.15 535.3 3593.85 94.66666667 1530.183333 6988.73333 40630.183333 166.2333333	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.118467 0.323986 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.004044 0.032309 2.833859 0.013031 0.00916 0.007764 0.052123 0.022193 1.013615 0.58927 0.002411	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.1312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -3.51052 -3.43241 1.041639 -4.34041 -6.99562 -4.85831 -2.95416 -6.59077 -3.80799 0.013523 -0.52887 -6.02774
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/26/2019 2/26/2019 2/26/2019 2/27/2019 2/6/2019 2/7/2019 2/7/2019 3/11/2019 3/11/2019 3/14/2019 3/14/2019 3/15/2019 3/18/2019 3/18/2019 3/19/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/25/2019	68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.63333 231696.3167 2016 7592.916667 210.65 278.833333 2227.7 195394.5833 898.5 63.15 535.3 3593.85 94.66666667 1530.18333 69888.73333 40630.18333 166.233333 1545.24 19034.2	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.323986 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.004044 0.032309 2.833859 0.013031 0.00916 0.007764 0.052123 0.002413 0.022193 1.013615 0.58927 0.002411 0.022436 0.195104 0.276058	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.1312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -5.79094 -5.51052 -3.43241 1.041639 -4.34041 -6.9562 -4.85831 -2.95416 -6.59077 -3.80799 0.013523 -0.52887 -6.02774 -3.79707 -1.63422 -1.28714
2/20/2019 2/21/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/26/2019 2/26/2019 2/27/2019 2/28/2019 2/7/2019 2/8/2019 3/10/2019 3/10/2019 3/12/2019 3/15/2019 3/15/2019 3/15/2019 3/2019 3/2019 3/2019 3/2019 3/2019 3/21/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019	68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.26666 22338.86667 50520.01667 104.2 3480.63333 231696.3167 2016 7592.916667 210.65 278.833333 2227.7 195394.5833 898.5 63.15 535.3 3593.85 94.66666667 1530.18333 6988.7333 40630.18333 1546.983333 13452.4 19034.2 2455.63333	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.1323986 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.004044 0.032309 2.833859 0.013031 0.00916 0.007764 0.052123 0.001373 0.022193 1.013615 0.58927 0.002411 0.022436 0.195104 0.276058 0.035615	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.1312 -1.12705 -0.31101 -6.49482 -2.98617 1.21206 -3.53227 -2.20617 -3.79094 -3.53227 -3.43241 1.041639 -4.34041 -6.99562 -4.85831 -2.95416 -6.59077 -3.80799 0.013523 -0.52887 -6.02774 -3.79707 -1.63422 -1.28714 -3.335
2/20/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/25/2019 2/25/2019 2/26/2019 2/26/2019 2/28/2019 2/28/2019 2/7/2019 2/8/2019 3/1/2019 3/14/2019 3/14/2019 3/14/2019 3/14/2019 3/14/2019 3/14/2019 3/14/2019 3/14/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019	68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.266666 22338.86667 50520.01667 104.2 3480.633333 231696.3167 2016 7592.916667 210.65 278.833333 2227.7 195394.5833 898.5 63.15 5355 3593.85 94.66666667 1530.18333 69888.7333 40630.18333 1546.983333 1546.983333 1546.983333 13452.4 19034.2	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.118467 0.323986 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.004044 0.32309 2.833859 0.013031 0.00916 0.007764 0.052123 0.001373 0.022193 1.013615 0.58927 0.002411 0.022436 0.195104 0.276058 0.036615 0.01424	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -5.79094 -5.51052 -3.43241 1.041639 -4.34041 -6.99562 -4.85831 -2.95416 -6.59077 -3.80799 0.013523 -0.52887 -6.02774 -3.79707 -1.63422 -1.287214 -3.335 -4.2517
2/20/2019 2/21/2019 2/21/2019 2/22/2019 2/23/2019 2/24/2019 2/26/2019 2/26/2019 2/26/2019 2/27/2019 2/28/2019 2/7/2019 2/8/2019 3/10/2019 3/10/2019 3/12/2019 3/14/2019 3/15/2019 3/15/2019 3/15/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019 3/22/2019	68950 68950	165799.9167 8513.733331 3532.966667 8096.416667 447492.9667 8318.449999 8168.26666 22338.86667 50520.01667 104.2 3480.63333 231696.3167 2016 7592.916667 210.65 278.833333 2227.7 195394.5833 898.5 63.15 535.3 3593.85 94.66666667 1530.18333 6988.7333 40630.18333 1546.983333 13452.4 19034.2 2455.63333	2.40464 0.123477 0.05124 0.117424 6.490108 0.120645 0.1323986 0.732705 0.001511 0.050481 3.360353 0.029239 0.110122 0.003055 0.004044 0.032309 2.833859 0.013031 0.00916 0.007764 0.052123 0.001373 0.022193 1.013615 0.58927 0.002411 0.022436 0.195104 0.276058 0.035615	0.8774 -2.0917 -2.97124 -2.14196 1.870279 -2.11491 -2.13312 -1.12705 -0.31101 -6.49482 -2.98617 1.212046 -3.53227 -2.20617 -3.53227 -2.20617 -3.53227 -3.43241 1.041639 -4.34041 -6.99562 -4.85831 -2.95416 -6.59077 -3.80799 0.013523 -0.52887 -0.52887 -0.52887 -0.52847 -0.52847 -1.28714 -3.379707 -1.63422 -1.28714 -3.335

3/30/2019	68950	180560.3333	2.618714	0.962683
3/31/2019	68950	711.2166667	0.010315	-4.57416
3/4/2019	68950	90.43333333	0.001312	-6.63652
3/5/2019	68950	159.6666667	0.002316	-6.06805
3/6/2019 3/7/2019	68950	228987.4333 623.4666667	3.321065	1.200286 -4.70584
3/9/2019	68950 68950	153739.7667	0.009042 2.229728	0.80188
4/10/2019	68950	14465.1	0.209791	-1.56164
4/11/2019	68950	67048.55	0.972423	-0.02796
4/12/2019	68950	6359.366667	0.092232	-2.38345
4/13/2019	68950	1623.233333	0.023542	-3.74896
4/14/2019 4/15/2019	68950 68950	2328005.8 11353.76667	33.76368 0.164667	3.519386
4/16/2019	68950	284.9	0.004132	-5.489
4/17/2019	68950	40309.56667	0.58462	-0.53679
4/18/2019	68950	22194.51667	0.321893	-1.13354
4/19/2019	68950	35693.2	0.517668	-0.65842
4/2/2019 4/20/2019	68950	269.7	0.003912	-5.54383 -4.37506
4/20/2019	68950 68950	867.9 488.2666667	0.012587 0.007081	-4.95028
4/22/2019	68950	1290.383333	0.018715	-3.97844
4/23/2019	68950	78.06666666	0.001132	-6.78357
4/24/2019	68950	1155.35	0.016756	-4.08898
4/25/2019	68950	1972.966667	0.028614	-3.55384
4/26/2019 4/27/2019	68950	45893.9	0.665611	-0.40705
4/28/2019	68950 68950	3097.45 100661.5667	0.044923	-3.1028 0.378382
4/29/2019	68950	25446.83333	0.369062	-0.99679
4/3/2019	68950	32.63333333	0.000473	-7.6558
4/30/2019	68950	218591.7167	3.170293	1.153824
4/4/2019	68950	36572.86667	0.530426	-0.63407
4/5/2019 4/6/2019	68950 68950	22925.48333 2083.466667	0.332494 0.030217	-1.10113 -3.49935
4/7/2019	68950	3882.8	0.056313	-2.87683
4/8/2019	68950	1129.8	0.016386	-4.11134
4/9/2019	68950	1439.933333	0.020884	-3.86878
5/1/2019	68950	7194.933333	0.10435	-2.26
5/10/2019	68950	18653.8	0.270541	-1.30733
5/11/2019 5/12/2019	68950 68950	21465.68333 3162.25	0.311322 0.045863	-1.16693 -3.0821
5/13/2019	68950	12730.75	0.184637	-1.68936
5/14/2019	68950	7953.416667	0.11535	-2.15978
5/15/2019	68950	2955.033333	0.042858	-3.14987
5/16/2019	68950	25598.33333	0.371259	-0.99085
5/17/2019 5/18/2019	68950 68950	5955.966667 117084.65	0.086381 1.698109	-2.44899 0.529516
5/19/2019	68950	79903.6	1.158863	0.147439
5/2/2019	68950	115806.35	1.67957	0.518538
5/20/2019	68950	157419.1	2.283091	0.82553
5/21/2019	68950	28914.93333	0.419361	-0.86902
5/22/2019 5/23/2019	68950 68950	1414.683333 10356.61667	0.020518 0.150205	-3.88648 -1.89576
5/24/2019	68950	3361.983333	0.04876	-3.02085
5/25/2019	68950	4550.9	0.066003	-2.71806
5/26/2019	68950	170923.4	2.478947	0.907834
5/27/2019	68950	24461.73333	0.354775	-1.03627
5/28/2019 5/29/2019	68950 68950	2609.366667 125542.7833	0.037844 1.82078	-3.27427 0.599265
5/3/2019	68950	95824.11666	1.389762	0.329133
5/30/2019	68950	36697.6	0.532235	-0.63067
5/31/2019	68950	24128.11667	0.349936	-1.05
5/4/2019	68950	1362.433333	0.01976	-3.92411
5/5/2019 5/6/2019	68950 68950	26703.4 9240.550001	0.387286	-0.94859 -2.00978
5/7/2019	68950	6609.3	0.095856	-2.3449
5/8/2019	68950	896.95	0.013009	-4.34214
5/9/2019	68950	2916.466667	0.042298	-3.16301
6/1/2019	68950	920.2833333	0.013347	-4.31646
6/10/2019 6/11/2019	68950 68950	9696.516667 6362.2	0.140631 0.092273	-1.96161 -2.38301
6/12/2019	68950	17430.86667	0.092273	-1.37514
6/13/2019	68950	23120.86667	0.335328	-1.09265
6/14/2019	68950	103775.05	1.505077	0.408844
6/15/2019	68950	5654.85	0.082014	-2.50087
6/16/2019 6/17/2019	68950 68950	1410.4 128710.0333	0.020455	-3.88951
6/17/2019 6/18/2019	68950 68950	128710.0333 63148.78334	1.866715 0.915863	0.62418
6/19/2019	68950	273512.4333	3.966823	1.377965
6/2/2019	68950	2518.7	0.036529	-3.30964
6/20/2019	68950	553887.9	8.033182	2.083581
6/21/2019	68950	5753724.7	83.44778	4.424221
6/22/2019 6/23/2019	68950 68950	3002261.467 412454.6667	43.54259 5.981939	3.77374 1.788745
6/24/2019	68950	62529.63333	0.906884	-0.09774
6/25/2019	68950	16982.8	0.246306	-1.40118
6/26/2019	68950	46749.73333	0.678024	-0.38857

6/27/2019         6895           6/28/2019         6895           6/29/2019         6895           6/30/2019         6895           6/30/2019         6895           6/3/2019         6895           6/3/2019         6895           6/3/2019         6895           6/3/2019         6895           6/5/2019         6895           6/7/2019         6895           6/8/2019         6895           6/9/2019         6895           7/1/2019         6895           7/10/2019         6895           7/11/2019         6895	0 55796.08333	0.301781	
6/28/2019         6895           6/29/2019         6895           6/3/2019         6895           6/30/2019         6895           6/30/2019         6895           6/4/2019         6895           6/5/2019         6895           6/6/2019         6895           6/7/2019         6895           6/7/2019         6895           6/8/2019         6895           6/9/2019         6895           7/1/2019         6895           7/10/2019         6895	0 55796.08333		
6/29/2019         6895           6/3/2019         6895           6/3/2019         6895           6/3/2019         6895           6/4/2019         6895           6/6/2019         6895           6/7/2019         6895           6/8/2019         6895           6/9/2019         6895           6/9/2019         6895           7/1/2019         6895           7/10/2019         6895			-1.19805
6/3/2019         6895           6/30/2019         6895           6/30/2019         6895           6/4/2019         6895           6/5/2019         6895           6/6/2019         6895           6/7/2019         6895           6/8/2019         6895           6/9/2019         6895           6/9/2019         6895           7/10/2019         6895	9000.0000000	0.809225	-0.21168
6/30/2019         6895           6/4/2019         6895           6/5/2019         6895           6/6/2019         6895           6/7/2019         6895           6/8/2019         6895           6/9/2019         6895           7/10/2019         6895           7/10/2019         6895	40862.18333	0.137863 0.592635	-1.9815 -0.52318
6/4/2019         6895           6/5/2019         6895           6/6/2019         6895           6/7/2019         6895           6/8/2019         6895           6/8/2019         6895           6/9/2019         6895           7/1/2019         6895           7/1/2019         6895		0.026878	-3.61644
6/5/2019         6895           6/6/2019         6895           6/7/2019         6895           6/8/2019         6895           6/9/2019         6895           7/1/2019         6895           7/1/2019         6895           7/1/2019         6895		0.091531	-2.39107
6/6/2019         6895           6/7/2019         6895           6/8/2019         6895           6/9/2019         6895           7/1/2019         6895           7/10/2019         6895		0.109284	-2.2138
6/7/2019         6895           6/8/2019         6895           6/9/2019         6895           7/1/2019         6895           7/10/2019         6895		1.534484	0.428194
6/8/201968956/9/201968957/1/201968957/10/20196895		0.94565	-0.05588
6/9/201968957/1/201968957/10/20196895		1.328398	0.283973
7/1/201968957/10/20196895		0.047109	-3.05529
7/10/2019 6895		0.749025	-0.28898
		0.148669	-1.90603
1/11/2010 0000		4.623164	1.531079
7/12/2019 6895		0.479545	-0.73492
7/15/2019 6895		1.17648	0.162527
7/16/2019 6895		0.78926	-0.23666
7/17/2019 6895		0.014266	-4.24987
7/18/2019 6895		0.351643	-1.04514
7/19/2019 6895		0.279606	-1.27437
7/2/2019 6895		0.07847	-2.54504
7/20/2019 6895		3.316874	1.199023
7/21/2019 6895		0.092896	-2.37628
7/22/2019 6895		2.543734	0.933633
7/23/2019 6895		1.953069	0.669402
7/24/2019 6895		0.102348	-2.27937
7/25/2019 6895		0.17324	-1.75308
7/26/2019 6895		0.152226	-1.88239
7/27/2019 6895		0.004756	-5.34828
7/28/2019 6895		0.010609	-4.54609
7/29/2019 6895		0.694108	-0.36513
7/3/2019 6895		0.316412	-1.15071
7/30/2019 6895		1.98068	0.68344
7/31/2019 6895		1.673943	0.515182
7/4/2019 6895		0.326656	-1.11885
			-1.51427
7/5/2019 6895 7/6/2019 6895		0.219969 0.343176	-1.06951
7/7/2019 6895		1.474543	0.388348
7/8/2019 6895		0.059571	-2.82059
7/9/2019 6895		0.261278	-2.82059
8/1/2019 6895		1.100911	0.096138
8/10/2019 6895		0.011384	-4.47556
8/11/2019 6895		0.075639	-2.58178
8/12/2019 6895		0.075549	-2.58178
8/13/2019 6895		3.892722	1.359109
8/14/2019 6895		0.580771	-0.5434
8/15/2019 6895		0.010449	-4.56121
8/16/2019 6895		0.118852	-2.12988
8/17/2019 6895		0.00267	-5.92566
8/18/2019 6895		0.034877	-3.35593
8/19/2019 6895		0.077982	-2.55128
8/2/2019 6895		0.878486	-0.12956
8/20/2019 6895		3.044539	1.11335
8/21/2019 6895		0.110313	-2.20444
8/22/2019 6895		0.099542	-2.30718
8/23/2019 6895		0.058514	-2.8385
8/24/2019 6895		0.58811	-0.53084
8/25/2019 6895		0.182615	-1.70038
8/26/2019 6895		0.096315	-2.34013
8/27/2019 6895		0.161442	-1.82361
8/28/2019 6895		0.167549	-1.78648
		0.123082	-2.0949
8/29/2019 6895	0 106.1833333	0.00154	-6.47597
		2.832546	1.041176
8/3/2019 6895		0.117368	-2.14244
8/3/2019 6895 8/30/2019 6895		0.013406	-4.31206
8/3/201968958/30/201968958/31/20196895		0.133786	
8/3/201968958/30/201968958/31/201968958/4/20196895			
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/4/2019         6895           8/5/2019         6895		0.237146	-2.01151
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/4/2019         6895           8/5/2019         6895           8/6/2019         6895	0 16351.2	0.237146	-2.01151 -1.43908
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/4/2019         6895           8/5/2019         6895           8/5/2019         6895           8/6/2019         6895           8/7/2019         6895	0 16351.2 0 5666.816667	0.082187	-2.01151 -1.43908 -2.49875
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/4/2019         6895           8/5/2019         6895           8/6/2019         6895           8/6/2019         6895           8/6/2019         6895           8/8/2019         6895	0 16351.2 0 5666.816667 0 1503.8	0.082187 0.02181	-2.01151 -1.43908 -2.49875 -3.82539
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/4/2019         6895           8/5/2019         6895           8/6/2019         6895           8/7/2019         6895           8/7/2019         6895           8/8/2019         6895           8/8/2019         6895           8/9/2019         6895	0 16351.2 5666.816667 0 1503.8 9638.416666	0.082187 0.02181 0.139788	-2.01151 -1.43908 -2.49875 -3.82539 -1.96762
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/31/2019         6895           8/5/2019         6895           8/6/2019         6895           8/7/2019         6895           8/7/2019         6895           8/8/2019         6895           8/9/2019         6895           9/1/2019         6895	0 16351.2 0 5666.816667 0 1503.8 0 9638.416666 0 12386.78333	0.082187 0.02181 0.139788 0.179649	-2.01151 -1.43908 -2.49875 -3.82539 -1.96762 -1.71675
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/4/2019         6895           8/5/2019         6895           8/5/2019         6895           8/7/2019         6895           8/2019         6895           8/9/2019         6895           9/1/2019         6895           9/10/2019         6895	0 16351.2 5666.816667 0 1503.8 9638.416666 0 12386.78333 0 2761.316667	0.082187 0.02181 0.139788 0.179649 0.040048	-2.01151 -1.43908 -2.49875 -3.82539 -1.96762 -1.71675 -3.21767
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/4/2019         6895           8/5/2019         6895           8/5/2019         6895           8/2019         6895           8/2019         6895           8/2019         6895           8/9/2019         6895           9/1/2019         6895           9/10/2019         6895           9/10/2019         6895           9/11/2019         6895	0         16351.2           0         5666.816667           0         1503.8           0         9638.416666           0         12386.78333           0         2761.316667           0         62860.01667	0.082187 0.02181 0.139788 0.179649 0.040048 0.911675	-2.01151 -1.43908 -2.49875 -3.82539 -1.96762 -1.71675 -3.21767 -0.09247
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/3/2019         6895           8/5/2019         6895           8/6/2019         6895           8/7/2019         6895           8/8/2019         6895           9/12/2019         6895           9/10/2019         6895           9/10/2019         6895           9/12/2019         6895	0         16351.2           0         5666.816667           0         1503.8           0         9638.416666           0         12386.78333           0         2761.316667           0         62860.01667           0         7796.883333	0.082187 0.02181 0.139788 0.179649 0.040048 0.911675 0.11308	-2.01151 -1.43908 -2.49875 -3.82539 -1.96762 -1.71675 -3.21767 -0.09247 -2.17966
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/3/2019         6895           8/5/2019         6895           8/6/2019         6895           8/7/2019         6895           8/8/2019         6895           8/9/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/11/2019         6895           9/12/2019         6895           9/13/2019         6895	0         16351.2           0         5666.816667           0         1503.8           0         9638.416666           0         12386.78333           0         2761.316667           0         62860.01667           0         7796.883333           0         1154.633333	0.082187 0.02181 0.139788 0.179649 0.040048 0.911675 0.11308 0.016746	-2.01151 -1.43908 -2.49875 -3.82539 -1.96762 -1.71675 -3.21767 -0.09247 -2.17966 -4.0896
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/31/2019         6895           8/4/2019         6895           8/5/2019         6895           8/6/2019         6895           8/7/2019         6895           8/7/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/12/2019         6895           9/12/2019         6895           9/13/2019         6895           9/14/2019         6895	0         16351.2           0         5666.816667           0         1503.8           0         9638.416666           0         12386.78333           0         2761.316667           0         62860.01667           0         7796.883333           0         1154.633333           0         35888.8	0.082187 0.02181 0.139788 0.179649 0.040048 0.911675 0.11308 0.016746 0.520505	-2.01151 -1.43908 -2.49875 -3.82539 -1.96762 -1.71675 -3.21767 -0.09247 -2.17966 -4.0896 -0.65296
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/4/2019         6895           8/4/2019         6895           8/5/2019         6895           8/7/2019         6895           8/2019         6895           8/9/2019         6895           9/1/2019         6895           9/10/2019         6895           9/12/2019         6895           9/12/2019         6895           9/12/2019         6895           9/13/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895	0         16351.2           0         5666.816667           0         9638.416666           0         12386.78333           0         2761.316667           0         62860.01667           0         1503.8333           0         154.633333           0         35888.8           0         3347.816667	0.082187 0.02181 0.139788 0.179649 0.040048 0.911675 0.11308 0.016746 0.520505 0.048554	-2.01151 -1.43908 -2.49875 -3.82539 -1.96762 -1.71675 -3.21767 -0.09247 -2.17966 -4.0896 -0.65296 -3.02507
8/3/2019         6895           8/30/2019         6895           8/30/2019         6895           8/31/2019         6895           8/3/2019         6895           8/5/2019         6895           8/6/2019         6895           8/7/2019         6895           8/9/2019         6895           9/1/2019         6895           9/10/2019         6895           9/12/2019         6895           9/12/2019         6895           9/12/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/15/2019         6895           9/15/2019         6895           9/15/2019         6895	0         16351.2           0         5666.816667           0         1503.8           0         9638.416666           0         12386.78333           0         2761.316667           0         62860.01667           0         7796.883333           0         35888.8           0         3347.816667           0         460813.7	0.082187 0.02181 0.139788 0.179649 0.040048 0.911675 0.11308 0.016746 0.520505 0.048554 6.683302	-2.01151 -1.43908 -2.49875 -3.82539 -1.96762 -1.71675 -3.21767 -0.09247 -2.17966 -4.0896 -0.65296 -3.02507 1.899612
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/31/2019         6895           8/3/2019         6895           8/5/2019         6895           8/6/2019         6895           8/7/2019         6895           8/9/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/12/2019         6895           9/13/2019         6895           9/13/2019         6895           9/14/2019         6895           9/15/2019         6895           9/15/2019         6895           9/15/2019         6895           9/15/2019         6895           9/16/2019         6895           9/16/2019         6895	0         16351.2           0         5666.816667           0         1503.8           0         9638.416666           0         12386.78333           0         2761.316667           0         62860.01667           0         7796.883333           0         1154.633333           0         3588.8           0         3347.816667           0         460813.7           0         56641.58333	0.082187 0.02181 0.139788 0.179649 0.040048 0.911675 0.11308 0.016746 0.520505 0.048554 6.683302 0.821488	-2.01151 -1.43908 -2.49875 -3.82539 -1.96762 -1.71675 -3.21767 -0.09247 -2.17966 -4.0896 0.65296 -3.02507 1.899612 -0.19664
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/31/2019         6895           8/4/2019         6895           8/5/2019         6895           8/6/2019         6895           8/7/2019         6895           8/8/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/12/2019         6895           9/12/2019         6895           9/13/2019         6895           9/14/2019         6895           9/14/2019         6895           9/16/2019         6895           9/16/2019         6895           9/16/2019         6895           9/16/2019         6895           9/16/2019         6895           9/17/2019         6895           9/17/2019         6895           9/17/2019         6895           9/18/2019         6895	0         16351.2           0         5666.816667           0         1503.8           0         9638.416666           0         12386.78333           0         2761.316667           0         62860.01667           0         7796.883333           0         1154.633333           0         35888.8           0         3347.816667           0         5664.1.583333           0         5664.1.583333           0         5664.1.583333	0.082187 0.02181 0.139788 0.179649 0.040048 0.911675 0.11308 0.016746 0.520505 0.048554 6.683302 0.821488 0.052232	-2.01151 -1.43908 -2.49875 -3.82539 -1.96762 -1.71675 -3.21767 -0.09247 -2.17966 -4.0896 -0.65296 -3.02507 1.899612 -0.19664 -2.95206
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/31/2019         6895           8/4/2019         6895           8/5/2019         6895           8/6/2019         6895           8/7/2019         6895           8/7/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/12/2019         6895           9/12/2019         6895           9/12/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/18/2019         6895           9/18/2019         6895           9/19/2019         6895	0         16351.2           0         5666.816667           0         1503.8           0         9638.416666           0         12386.78333           0         2761.316667           0         62860.01667           0         7796.883333           0         1154.633333           0         3588.8           0         3347.816667           0         460813.7           0         56641.58333           0         3601.383333           0         990.95	0.082187 0.02181 0.139788 0.179649 0.040048 0.911675 0.11308 0.016746 0.520505 0.048554 6.683302 0.821488 0.052232 0.014372	-2.01151 -1.43908 -2.49875 -3.82539 -1.96762 -1.71675 -3.21767 -0.09247 -2.17966 -0.65296 -3.02507 1.899612 -0.19664 -2.95206 -4.24247
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/31/2019         6895           8/4/2019         6895           8/5/2019         6895           8/7/2019         6895           8/2019         6895           8/9/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/19/2019         6895           9/19/2019         6895           9/19/2019         6895           9/19/2019         6895	0         16351.2           0         5666.816667           0         9638.416666           0         12386.78333           0         2761.316667           0         62860.01667           0         7796.883333           0         3347.816667           0         3347.816667           0         56641.58333           0         35671.3333           0         3407.81667           0         460813.7           0         56641.58333           0         390.95           0         1134.633333	0.082187 0.02181 0.139788 0.179649 0.040048 0.911675 0.11308 0.016746 0.520505 0.048554 6.683302 0.821488 0.052232 0.014372 0.016456	-2.01151 -1.43908 -2.49875 -3.82539 -1.96762 -1.71675 -3.217676 -0.09247 -2.17966 -4.0896 -0.65296 -3.02507 1.899612 -0.19664 -2.95206 -4.24247 -4.10707
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/3/2019         6895           8/3/2019         6895           8/5/2019         6895           8/6/2019         6895           8/7/2019         6895           8/9/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/12/2019         6895           9/13/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/14/2019         6895           9/12/2019         6895           9/12/2019         6895           9/2/2019         6895           9/2/2019         6895	0         16351.2           0         5666.816667           0         1503.8           0         9638.416666           0         12386.78333           0         2761.316667           0         62860.01667           0         7796.883333           0         3147.816667           0         3347.816667           0         56641.58333           0         3601.383333           0         990.95           0         1134.633333           0         990.95           0         1134.633333	0.082187 0.02181 0.139788 0.179649 0.040048 0.911675 0.11308 0.016746 0.520505 0.048554 6.683302 0.821488 0.052232 0.014372 0.016456 0.245681	-2.01151 -1.43908 -2.49875 -3.82539 -1.96762 -1.71675 -3.21767 -0.09247 -0.09247 -0.09247 -0.0926 -4.0896 -0.65296 -0.429267 -0.19664 -2.95206 -4.242477 -4.10707 -1.40372
8/3/2019         6895           8/30/2019         6895           8/31/2019         6895           8/31/2019         6895           8/4/2019         6895           8/5/2019         6895           8/7/2019         6895           8/2019         6895           8/9/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/1/2019         6895           9/19/2019         6895           9/19/2019         6895           9/19/2019         6895           9/19/2019         6895	0         16351.2           0         5666.816667           0         1503.8           0         9638.416666           0         12386.78333           0         2761.316667           0         62860.01667           0         7796.883333           0         1154.633333           0         35888.8           0         3347.816667           0         460813.7           0         56641.583333           0         3601.3833333           0         990.95           0         1134.633333           0         693.683333           0         5694.7333333	0.082187 0.02181 0.139788 0.179649 0.040048 0.911675 0.11308 0.016746 0.520505 0.048554 6.683302 0.821488 0.052232 0.014372 0.016456	-2.0115 -1.43900 -2.49874 -3.82534 -1.96766 -1.71674 -3.21760 -0.09244 -2.17960 -4.0899 -0.65299 -3.02500 1.899611 -0.19660 -2.95200 -4.24244 -4.10700

9/23/2019	68950	20607.11667	0.29887	-1.20775
9/24/2019	68950	35262.88333	0.511427	-0.67055
9/25/2019	68950	8958.833334	0.129932	-2.04074
9/26/2019	68950	3079.733334	0.044666	-3.10854
9/27/2019	68950	3893.6	0.05647	-2.87405
9/28/2019	68950	23358.23333	0.338771	-1.08243
9/29/2019	68950	6318.433333	0.091638	-2.38991
9/3/2019	68950	1073.7	0.015572	-4.16227
9/30/2019	68950	15255.68333	0.221257	-1.50843
9/4/2019	68950	1550.783333	0.022491	-3.79462
9/5/2019	68950	40431.66667	0.586391	-0.53377
9/6/2019	68950	60.25	0.000874	-7.04263
9/7/2019	68950	961.3833333	0.013943	-4.27276
9/8/2019	68950	4339.666667	0.062939	-2.76558
9/9/2019	68950	10377.21667	0.150504	-1.89377
	I	I		

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #1505:

1. SUBSTATION NAME AND NUMBER

#### 15/BRONSTON #2

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 2373 HWY 790, Somerset, KY 42501

#### 3. CIRCUIT NAME AND NUMBER

WOODSON BEND / #1505

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

# FEEDS WOODSON BEND RESORT

# 5. TOTAL CIRCUIT LENGTH (MILES)

10.55

6. CUSTOMER COUNT FOR THIS CIRCUIT

631

- 7.. DATE OF LAST CIRCUIT TRIM (VM)
- 8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS NUMBERS REPRESENTED BY EACH CAUSE

1	Unknown Cause	
2	Other Animal	
3	Trees	43%
4	Lightning	14%
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	
14	Bird	
15	Major Storm	14%
16	Line Down	
17	Transformer Fuse Blown	14%
18	Line Fuse	14%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	

# 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 69.07443 10. REPORTING YEAR (SAIDI) 198.08584 11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.80637

12. REPORTING YEAR (SAIFI)

1.9413629

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #0101:

1. SUBSTATION NAME AND NUMBER

#### 01/RUSSELL SPRINGS #1

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 64 Old Sano Road, Russell Springs, Ky 42642

3. CIRCUIT NAME AND NUMBER

#### NORTH HWY 127 / #0101

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

# NORTH HWY 127 FROM HWY 80

5. TOTAL CIRCUIT LENGTH (MILES)

# 7.25

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 162

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2010

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

1	Unknown Cause	10%
2	Other Animal	
3	Trees	20%
4	Lightning	10%
5	Car Hit Pole	
6	SOURCE	10%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	30%
14	Bird	
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	
18	Line Fuse	10%
19	Broke Pole	10%
20	Wind	
21	Load	
22	Planned	

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 91.50551

10. REPORTING YEAR (SAIDI)

110.6073

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.29462

#### 12. REPORTING YEAR (SAIFI)

- 2.9012346
- 13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #0102:

1. SUBSTATION NAME AND NUMBER

#### 01/RUSSELL SPRINGS #1

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 64 Old Sano Road, Russell Springs, Ky 42642

3. CIRCUIT NAME AND NUMBER

#### BERNARD RIDGE / #0102

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

#### HWY 80

5. TOTAL CIRCUIT LENGTH (MILES)

# 25.52

6. CUSTOMER COUNT FOR THIS CIRCUIT

# 498

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2010

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

1	Unknown Cause	
2	Other Animal	
3	Trees	40%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	10%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	10%
14	Bird	10%
15	Major Storm	
16	Line Down	10%
17	Transformer Fuse Blown	10%
18	Line Fuse	
19	Broke Pole	10%
20	Wind	
21	Load	
22	Planned	

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 63.61723

10. REPORTING YEAR (SAIDI)

126.68116

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.78429

#### 12. REPORTING YEAR (SAIFI)

1.7289157

13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #0103:

1. SUBSTATION NAME AND NUMBER

#### 01/RUSSELL SPRINGS #1

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 64 Old Sano Road, Russell Springs, Ky 42642

3. CIRCUIT NAME AND NUMBER

#### FRENCH VALLEY IND. PARK / #0103

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

# FEEDS SOUTH ON HAILS HIGHWAY

5. TOTAL CIRCUIT LENGTH (MILES)

# 12.91

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 152

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2013

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

1	Unknown Cause	
2	Other Animal	
3	Trees	20%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	20%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	20%
14	Bird	
15	Major Storm	20%
16	Line Down	
17	Transformer Fuse Blown	20%
18	Line Fuse	
19	Broke Pole	
20	Wind	
21	Load	

22 Planned

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 50.03801

10. REPORTING YEAR (SAIDI)

77.670175

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.58513

#### 12. REPORTING YEAR (SAIFI)

1.0394737

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #0104:

1. SUBSTATION NAME AND NUMBER

#### 01/RUSSELL SPRINGS #2

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 64 Old Sano Road, Russell Springs, Ky 42642

3. CIRCUIT NAME AND NUMBER

#### HAILS HIGHWAY / #0104

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

# FEEDS SOUTH ON HAILS HIGHWAY

5. TOTAL CIRCUIT LENGTH (MILES)

# 60.27

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 793

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2012

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

1	Unknown Cause	
2	Other Animal	
3	Trees	31%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	3%
9	Defective Equipment	
10	Transformer	9%
11	Customer Wiring	
13	Squirrel	17%
14	Bird	9%
15	Major Storm	3%
16	Line Down	
17	Transformer Fuse Blown	17%
18	Line Fuse	6%
19	Broke Pole	3%
20	Wind	
21	Load	
22	Planned	3%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 104.95005

10. REPORTING YEAR (SAIDI)

#### 88.079025

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.4364

#### 12. REPORTING YEAR (SAIFI)

- 1.519546
- 13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0105:**

1. SUBSTATION NAME AND NUMBER

#### 01/RUSSELL SPRINGS #2

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 64 Old Sano Road, Russell Springs, Ky 42642

3. CIRCUIT NAME AND NUMBER

#### WEST HWY 80 / #0105

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

# FEEDS WEST ON HWY 80 HIGHWAY

5. TOTAL CIRCUIT LENGTH (MILES)

# 48.2

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 858

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2017

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

1	Unknown Cause	8%
2	Other Animal	
3	Trees	18%
4	Lightning	5%
5	Car Hit Pole	
6	SOURCE	3%
9	Defective Equipment	
10	Transformer	5%
11	Customer Wiring	
13	Squirrel	8%
14	Bird	10%
15	Major Storm	5%
16	Line Down	3%
17	Transformer Fuse Blown	18%
18	Line Fuse	20%
19	Broke Pole	
20	Wind	
21	Load	

22 Planned

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 136.51525

10. REPORTING YEAR (SAIDI)

49.364744

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.83694

#### 12. REPORTING YEAR (SAIFI)

1.4055944

13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0106:**

1. SUBSTATION NAME AND NUMBER

#### 01/RUSSELL SPRINGS #2

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 64 Old Sano Road, Russell Springs, Ky 42642

3. CIRCUIT NAME AND NUMBER

#### SANO / #0106

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

FEEDS SANO NORTH FROM SUBSTATION

# 5. TOTAL CIRCUIT LENGTH (MILES)

60.22

6. CUSTOMER COUNT FOR THIS CIRCUIT

765

7.. DATE OF LAST CIRCUIT TRIM (VM)

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

1	Unknown Cause	
2	Other Animal	
3	Trees	24%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	4%
9	Defective Equipment	
10	Transformer	4%
11	Customer Wiring	
13	Squirrel	4%
14	Bird	8%
15	Major Storm	8%
16	Line Down	8%
17	Transformer Fuse Blown	28%
18	Line Fuse	
19	Broke Pole	4%
20	Wind	
21	Load	
22	Planned	8%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

127.5775

10. REPORTING YEAR (SAIDI)

#### 66.573224

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.18141

#### 12. REPORTING YEAR (SAIFI)

2.5215686

13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #0203:

1. SUBSTATION NAME AND NUMBER

#### 02/WINDSOR

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 1905 Highway 80, Windsor, KY 42565

#### 3. CIRCUIT NAME AND NUMBER

GOSSER RIDGE / #0203

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

#### FEEDS SOUTH ON HWY 910

5. TOTAL CIRCUIT LENGTH (MILES)

#### 64.2

6. CUSTOMER COUNT FOR THIS CIRCUIT

538

7.. DATE OF LAST CIRCUIT TRIM (VM)

2010

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

1	Unknown Cause	3%
2	Other Animal	
3	Trees	34%
4	Lightning	3%
5	Car Hit Pole	
6	SOURCE	3%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	3%
14	Bird	6%
15	Major Storm	
16	Line Down	3%
17	Transformer Fuse Blown	22%
18	Line Fuse	6%
19	Broke Pole	3%
20	Wind	
21	Load	
22	Planned	13%

# 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

202.52201

10. REPORTING YEAR (SAIDI)

142.4364

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.99935

#### 12. REPORTING YEAR (SAIFI)

2.5315985

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #0401:

1. SUBSTATION NAME AND NUMBER

#### 04/MT OLIVE

- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
  - 4968 Calvary Ridge Road, Yosemite, KY 42566
- 3. CIRCUIT NAME AND NUMBER
  - CALVARY RIDGE / #0401
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
- FEEDS CALVARY RIDGE

# 5. TOTAL CIRCUIT LENGTH (MILES)

48.9

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 507

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2010

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

1	Unknown Cause	
2	Other Animal	
3	Trees	43%
4	Lightning	4%
5	Car Hit Pole	
6	SOURCE	4%
9	Defective Equipment	
10	Transformer	4%
11	Customer Wiring	
13	Squirrel	9%
14	Bird	4%
15	Major Storm	4%
16	Line Down	
17	Transformer Fuse Blown	9%
18	Line Fuse	17%
19	Broke Pole	
20	Wind	
21	Load	

22 Planned

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

286.5027

10. REPORTING YEAR (SAIDI)

353.30789

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

3.39799

12. REPORTING YEAR (SAIFI)

5.27344

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0402:**

1. SUBSTATION NAME AND NUMBER

#### 04/MT OLIVE

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 4968 Calvary Ridge Road, Yosemite, KY 42566

3. CIRCUIT NAME AND NUMBER

#### WALLTOWN / #0402

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

#### FEEDS WALLTOWN

5. TOTAL CIRCUIT LENGTH (MILES)

# 67.07

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 656

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2012

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

1	Unknown Cause	
2	Other Animal	
3	Trees	45%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	3%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	10%
14	Bird	3%
15	Major Storm	6%
16	Line Down	3%
17	Transformer Fuse Blown	23%
18	Line Fuse	3%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	3%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 230.95023

10. REPORTING YEAR (SAIDI)

309.99243

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.66755

#### 12. REPORTING YEAR (SAIFI)

1.7911585

13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0403:**

1. SUBSTATION NAME AND NUMBER

#### 04/MT OLIVE

- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
  - 4968 Calvary Ridge Road, Yosemite, KY 42566
- 3. CIRCUIT NAME AND NUMBER
  - BROWN RIDGE/ #0403

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

FEEDS TOWARDS FISHING CREEK

# 5. TOTAL CIRCUIT LENGTH (MILES)

# 24.95

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 195

7.. DATE OF LAST CIRCUIT TRIM (VM)

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

1	Unknown Cause	
2	Other Animal	
3	Trees	43%
4	Lightning	
5	Car Hit Pole	5%
6	SOURCE	5%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	5%
14	Bird	10%
15	Major Storm	
16	Line Down	10%
17	Transformer Fuse Blown	5%
18	Line Fuse	14%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	5%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

180.82667

#### 10. REPORTING YEAR (SAIDI)

584.14872

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.55456

12. REPORTING YEAR (SAIFI)

4.133333

13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0406:**

1. SUBSTATION NAME AND NUMBER

#### 04/MT OLIVE

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 4968 Calvary Ridge Road, Yosemite, KY 42566

3. CIRCUIT NAME AND NUMBER

#### CASEY STONE / #0406

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

#### FEEDS CASEY STONE

5. TOTAL CIRCUIT LENGTH (MILES)

# 66.63

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 544

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2010

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

1	Unknown Cause	5%
2	Other Animal	
3	Trees	26%
4	Lightning	11%
5	Car Hit Pole	
6	SOURCE	5%
9	Defective Equipment	
10	Transformer	5%
11	Customer Wiring	
13	Squirrel	11%
14	Bird	
15	Major Storm	5%
16	Line Down	
17	Transformer Fuse Blown	5%
18	Line Fuse	
19	Broke Pole	16%
20	Wind	
21	Load	
22	Planned	11%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

605.29567

#### 10. REPORTING YEAR (SAIDI)

#### 740.80334

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

3.58365

#### 12. REPORTING YEAR (SAIFI)

6.4540441

13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0501:**

1. SUBSTATION NAME AND NUMBER

#### 05/SOMERSET

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 105 Jared Lane, Somerset, KY 42501

#### **3. CIRCUIT NAME AND NUMBER**

**INDUSTRIAL PARK / #0501** 

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

### FEEDS TOWARD CABIN HOLLOW

#### 5. TOTAL CIRCUIT LENGTH (MILES)

3.05

6. CUSTOMER COUNT FOR THIS CIRCUIT

18

7.. DATE OF LAST CIRCUIT TRIM (VM)

2012

- 8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS NUMBERS REPRESENTED BY EACH CAUSE
  - 1 Unknown Cause
  - 2 Other Animal
  - 3 Trees
  - 4 Lightning
  - 5 Car Hit Pole
  - 6 SOURCE
  - 9 Defective Equipment

100%

- 10 Transformer
- 11 Customer Wiring
- 13 Squirrel 14 Bird
- 15 Major Storm
- 16 Line Down
- 17 Transformer Fuse Blown
- 18 Line Fuse
- 19 Broke Pole
- 20 Wind
- 21 Load
- 22 Planned

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

17.51449

**10. REPORTING YEAR (SAIDI)** 

82.736111

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.68485

12. REPORTING YEAR (SAIFI)

0.83333333

**13. CORRECTIVE ACTION PLAN** 

SUBSTATION MAINTENANCE OCCURRED, FUTURE PLANNING IN PROGRESS

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0502:**

1. SUBSTATION NAME AND NUMBER

#### 05/SOMERSET

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 105 Jared Lane, Somerset, KY 42501

**3. CIRCUIT NAME AND NUMBER** 

#### ELIHU RR CROSSING / #0502

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

FEEDS TOWARD CABIN HOLLOW

#### 5. TOTAL CIRCUIT LENGTH (MILES) 1.11

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 10

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2012

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

1	Unknown Cause	
2	Other Animal	
3	Trees	50%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	50%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	
14	Bird	
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	
18	Line Fuse	
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 76.15567

**10. REPORTING YEAR (SAIDI)** 

#### 380.77833

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.38

12. REPORTING YEAR (SAIFI)

1.9

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0406:**

1. SUBSTATION NAME AND NUMBER

#### 05/SOMERSET

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 105 Jared Lane, Somerset, KY 42501

3. CIRCUIT NAME AND NUMBER

#### SOMERSET BOAT DOCK / #0503

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

#### FEEDS BOAT DOCK RD

5. TOTAL CIRCUIT LENGTH (MILES)

# 14.24

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 652

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2011

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

1	Unknown Cause	9%
2	Other Animal	
3	Trees	36%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	18%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	18%
14	Bird	
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	9%
18	Line Fuse	9%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

# 202.59686

10. REPORTING YEAR (SAIDI)

77.124642

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.95491

12. REPORTING YEAR (SAIFI)

- 1.1564417
- **13. CORRECTIVE ACTION PLAN**

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0406:**

1. SUBSTATION NAME AND NUMBER

#### 05/SOMERSET

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 105 Jared Lane, Somerset, KY 42501

**3. CIRCUIT NAME AND NUMBER** 

#### SOUTHERN HILLS / #0504

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

FEEDS PARKERS MILL RD

#### 5. TOTAL CIRCUIT LENGTH (MILES) 10.47

6. CUSTOMER COUNT FOR THIS CIRCUIT

# 462

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2010

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

1	Unknown Cause	
2	Other Animal	
3	Trees	46%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	15%
9	Defective Equipment	
10	Transformer	8%
11	Customer Wiring	
13	Squirrel	8%
14	Bird	8%
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	8%
18	Line Fuse	8%
19	Broke Pole	
20	Wind	
21	Load	

22 Planned

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 62.31242

**10. REPORTING YEAR (SAIDI)** 

189.41219

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.89513

#### 12. REPORTING YEAR (SAIFI)

2.1536797

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0406:**

1. SUBSTATION NAME AND NUMBER

#### 05/SOMERSET

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 105 Jared Lane, Somerset, KY 42501

3. CIRCUIT NAME AND NUMBER

#### OAK HILL RD. / #0505

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

# FEEDS TOWARD SOMERSET

5. TOTAL CIRCUIT LENGTH (MILES) 6.01

#### ло т

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 98

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2012

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

1	Unknown Cause	
2	Other Animal	
3	Trees	25%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	25%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	
14	Bird	25%
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	
18	Line Fuse	25%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 147.27012

10. REPORTING YEAR (SAIDI)

275.10238

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.42355

#### 12. REPORTING YEAR (SAIFI)

4.3469388

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #0602:

1. SUBSTATION NAME AND NUMBER

#### 06/EAST SOMERSET

- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) 126 Garner School Road, Somerset, KY 42503
- 3. CIRCUIT NAME AND NUMBER

**BOLTON SUBDIVISION / #0602** 

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

# FEEDS BOLTON SUBDIVISION TOWARD NV

# 5. TOTAL CIRCUIT LENGTH (MILES)

6.58

6. CUSTOMER COUNT FOR THIS CIRCUIT

123

- 7.. DATE OF LAST CIRCUIT TRIM (VM)
- 8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS NUMBERS REPRESENTED BY EACH CAUSE

1	Unknown Cause	
2	Other Animal	
3	Trees	22%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	11%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	33%
14	Bird	
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	22%
18	Line Fuse	
19	Broke Pole	
20	Wind	11%
21	Load	
22	Planned	

## 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #0603:

1. SUBSTATION NAME AND NUMBER

#### 06/EAST SOMERSET

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) 126 Garner School Road, Somerset, KY 42503

#### 3. CIRCUIT NAME AND NUMBER

SUGAR HILL / #0603

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

#### FEEDS SUGAR HILL EAST 80

5. TOTAL CIRCUIT LENGTH (MILES)

27.26

6. CUSTOMER COUNT FOR THIS CIRCUIT

510

- 7.. DATE OF LAST CIRCUIT TRIM (VM)
- 8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS NUMBERS REPRESENTED BY EACH CAUSE

1	Unknown Cause	5%
2	Other Animal	
3	Trees	29%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	10%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	33%
14	Bird	5%
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	14%
18	Line Fuse	
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	5%

 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 86.50787
 10. REPORTING YEAR (SAIDI) 329.59154

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.03386

#### 12. REPORTING YEAR (SAIFI)

4.1529412

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #0604:

1. SUBSTATION NAME AND NUMBER

#### 06/EAST SOMERSET

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) 126 Garner School Road, Somerset, KY 42503

#### 3. CIRCUIT NAME AND NUMBER

EAST HWY 192 / #0604

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

#### FEEDS EAST ON HWY 192

5. TOTAL CIRCUIT LENGTH (MILES)

62.29

6. CUSTOMER COUNT FOR THIS CIRCUIT

788

7.. DATE OF LAST CIRCUIT TRIM (VM)

2016

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

1	Unknown Cause	
2	Other Animal	
3	Trees	60%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	4%
9	Defective Equipment	
10	Transformer	4%
11	Customer Wiring	
13	Squirrel	12%
14	Bird	4%
15	Major Storm	4%
16	Line Down	8%
17	Transformer Fuse Blown	
18	Line Fuse	4%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	

# 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 163.14708 10. REPORTING YEAR (SAIDI) 169.29983 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.59356

12. REPORTING YEAR (SAIFI)

2.5609137

13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #0605:

1. SUBSTATION NAME AND NUMBER

#### 06/EAST SOMERSET

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) 126 Garner School Road, Somerset, KY 42503

## 3. CIRCUIT NAME AND NUMBER

GOFFTOWN / #0605

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

#### FEEDS GRUNDY RD AREA

#### 5. TOTAL CIRCUIT LENGTH (MILES)

41.35

6. CUSTOMER COUNT FOR THIS CIRCUIT

560

7.. DATE OF LAST CIRCUIT TRIM (VM)

2015

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

1	Unknown Cause	
2	Other Animal	
3	Trees	41%
4	Lightning	5%
5	Car Hit Pole	
6	SOURCE	5%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	18%
14	Bird	9%
15	Major Storm	
16	Line Down	9%
17	Transformer Fuse Blown	9%
18	Line Fuse	
19	Broke Pole	5%
20	Wind	
21	Load	
22	Planned	

# 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 148.23547 10. REPORTING YEAR (SAIDI) 134.76824 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.418 12. REPORTING YEAR (SAIFI) 1.5767857

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #0701:

1. SUBSTATION NAME AND NUMBER

#### 07/SHOPVILLE

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 130 Dahl Road, Somerset, KY 42501

3. CIRCUIT NAME AND NUMBER

#### STAB / #0701

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

#### FEEDS EAST HWY 80

5. TOTAL CIRCUIT LENGTH (MILES)

# 118.45

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 875

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2019

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

1	Unknown Cause	
2	Other Animal	
3	Trees	29%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	4%
9	Defective Equipment	
10	Transformer	8%
11	Customer Wiring	
13	Squirrel	8%
14	Bird	4%
15	Major Storm	4%
16	Line Down	13%
17	Transformer Fuse Blown	17%
18	Line Fuse	8%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	4%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 407.61926

10. REPORTING YEAR (SAIDI)

#### 433.04973

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.71491

#### 12. REPORTING YEAR (SAIFI)

3.552

**13. CORRECTIVE ACTION PLAN** 

CKT WILL BE VISUALLY INSPECTED TRANSMISSION FEED INSPECTED, THREE-WAY SWITCH TO BE INSTALLED

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0703:**

1. SUBSTATION NAME AND NUMBER

#### 07/SHOPVILLE

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 130 Dahl Road, Somerset, KY 42501

3. CIRCUIT NAME AND NUMBER

#### BARNESBURG / #0703

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

#### FEEDS WEST HWY 80

5. TOTAL CIRCUIT LENGTH (MILES)

# 46.11

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 562

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2019

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

1	Unknown Cause	
2	Other Animal	
3	Trees	42%
4	Lightning	5%
5	Car Hit Pole	
6	SOURCE	5%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	11%
14	Bird	5%
15	Major Storm	11%
16	Line Down	5%
17	Transformer Fuse Blown	5%
18	Line Fuse	
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	11%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 291.73154

10. REPORTING YEAR (SAIDI)

185.45451

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.17271

#### 12. REPORTING YEAR (SAIFI)

- 1.6156584
- **13. CORRECTIVE ACTION PLAN**

CKT WILL BE VISUALLY INSPECTED TRANSMISSION FEED INSPECTED, THREE-WAY SWITCH TO BE INSTALLED

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0705:**

1. SUBSTATION NAME AND NUMBER

#### 07/SHOPVILLE

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 130 Dahl Road, Somerset, KY 42501

3. CIRCUIT NAME AND NUMBER

#### **VALLEY OAK / #0705**

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

## FEEDS TOWARDS IND. PARK ON DAHL

5. TOTAL CIRCUIT LENGTH (MILES)

95.72

6. CUSTOMER COUNT FOR THIS CIRCUIT

752

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2019

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

1	Unknown Cause	
2	Other Animal	
3	Trees	34%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	3%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	3%
14	Bird	
15	Major Storm	13%
16	Line Down	28%
17	Transformer Fuse Blown	13%
18	Line Fuse	
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	6%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 105.27316

10. REPORTING YEAR (SAIDI)

209.90454

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.91099

#### 12. REPORTING YEAR (SAIFI)

2.7646277

**13. CORRECTIVE ACTION PLAN** 

CKT WILL BE VISUALLY INSPECTED TRANSMISSION FEED INSPECTED, THREE-WAY SWITCH TO BE INSTALLED

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0802:**

1. SUBSTATION NAME AND NUMBER

#### 08/NORWOOD

- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
- 279 West Racetrak Road, Somerset, KY 42501
- 3. CIRCUIT NAME AND NUMBER
  - EAGLE HARDWOOD / #0802
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
- FEEDS EAGLE HARDWOOD
- 5. TOTAL CIRCUIT LENGTH (MILES)

# 1.64

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 19

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2014

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

1	Unknown Cause	
2	Other Animal	
3	Trees	50%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	50%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	
14	Bird	
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	
18	Line Fuse	
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

24.54649

10. REPORTING YEAR (SAIDI)

122.73246

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.38947

#### 12. REPORTING YEAR (SAIFI)

1.9473684

**13. CORRECTIVE ACTION PLAN** 

CKT WILL BE VISUALLY INSPECTED SUBSTATION RECONFIGURATION OCCURRED

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0803:**

1. SUBSTATION NAME AND NUMBER

#### 08/NORWOOD

- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
  - 279 West Racetrak Road, Somerset, KY 42501
- 3. CIRCUIT NAME AND NUMBER

#### PARKWAY MANOR / #0803

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

# FEEDS TOWARDS RINGOLD RD.

5. TOTAL CIRCUIT LENGTH (MILES)

# 25.53

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 642

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2014

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

1	Unknown Cause	
2	Other Animal	
3	Trees	47%
4	Lightning	3%
5	Car Hit Pole	
6	SOURCE	3%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	7%
14	Bird	
15	Major Storm	10%
16	Line Down	
17	Transformer Fuse Blown	17%
18	Line Fuse	10%
19	Broke Pole	3%
20	Wind	
21	Load	
22	Planned	

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 145.28288

10. REPORTING YEAR (SAIDI)

293.78281

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.389

- 12. REPORTING YEAR (SAIFI)
- 3.6386293
- 13. CORRECTIVE ACTION PLAN

CKT WILL BE VISUALLY INSPECTED SUBSTATION RECONFIGURATION OCCURRED

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0804:**

1. SUBSTATION NAME AND NUMBER

#### 08/NORWOOD

- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
  - 279 West Racetrak Road, Somerset, KY 42501
- 3. CIRCUIT NAME AND NUMBER
  - BREEZY HILLS / #0804

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

#### FEEDS CLIFTY RD.

5. TOTAL CIRCUIT LENGTH (MILES)

#### 22.04

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 522

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2014

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

1	Unknown Cause	4%
2	Other Animal	
3	Trees	39%
4	Lightning	
5	Car Hit Pole	4%
6	SOURCE	9%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	4%
14	Bird	17%
15	Major Storm	4%
16	Line Down	
17	Transformer Fuse Blown	4%
18	Line Fuse	
19	Broke Pole	9%
20	Wind	
21	Load	
22	Planned	4%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 92.33824

10. REPORTING YEAR (SAIDI)

194.68155

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.15244

#### 12. REPORTING YEAR (SAIFI)

3.5632184

**13. CORRECTIVE ACTION PLAN** 

CKT WILL BE VISUALLY INSPECTED SUBSTATION RECONFIGURATION OCCURRED

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #0805:**

1. SUBSTATION NAME AND NUMBER

#### 08/NORWOOD

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 279 West Racetrak Road, Somerset, KY 42501

3. CIRCUIT NAME AND NUMBER

#### NORTH HWY 27 / #0805

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

#### 3.5

5. TOTAL CIRCUIT LENGTH (MILES)

#### 210

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 21

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2014

- 8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS NUMBERS REPRESENTED BY EACH CAUSE
  - 1 Unknown Cause
  - 2 Other Animal
  - 3 Trees
  - 4 Lightning
  - 5 Car Hit Pole 6 SOURCE

- 67%
- 9 Defective Equipment
- 10 Transformer
- 11 Customer Wiring
- 13 Squirrel
- 14 Bird
- 15 Major Storm
- 16 Line Down
- 17 Transformer Fuse Blown
- 18 Line Fuse
- 19 Broke Pole
- 20 Wind
- 21 Load 22 Planned

33%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

10.36774

10. REPORTING YEAR (SAIDI)

21.742222

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.17214

12. REPORTING YEAR (SAIFI)

0.347619

13. CORRECTIVE ACTION PLAN

CKT WILL BE VISUALLY INSPECTED SUBSTATION RECONFIGURATION OCCURRED

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #0901:

1. SUBSTATION NAME AND NUMBER

#### 09/FLOYD

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 859 Old Somerset Standford Road, Somerset, KY

#### 3. CIRCUIT NAME AND NUMBER

ESTESBURG / #0901

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

#### FEEDS TOWARD WOODSTOCK

#### 5. TOTAL CIRCUIT LENGTH (MILES)

15.45

6. CUSTOMER COUNT FOR THIS CIRCUIT

206

7.. DATE OF LAST CIRCUIT TRIM (VM)

2016

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

1	Unknown Cause	
2	Other Animal	
3	Trees	<b>50%</b>
4	Lightning	
5	Car Hit Pole	17%
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	17%
14	Bird	17%
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	
18	Line Fuse	
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	

## 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

90.12929

10. REPORTING YEAR (SAIDI)

161.08244

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.131185

12. REPORTING YEAR (SAIFI)

2.131068

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #0904:

1. SUBSTATION NAME AND NUMBER

#### 09/FLOYD

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 859 Old Somerset Standford Road, Somerset, KY

3. CIRCUIT NAME AND NUMBER

SOUTH HWY 27/ #0904

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

#### FEEDS SOUTH ON HWY 27

5. TOTAL CIRCUIT LENGTH (MILES)

6.67

6. CUSTOMER COUNT FOR THIS CIRCUIT

120

7.. DATE OF LAST CIRCUIT TRIM (VM)

2015

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

1	Unknown Cause	
2	Other Animal	
3	Trees	25%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	
14	Bird	
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	
18	Line Fuse	
19	Broke Pole	25%
20	Wind	
21	Load	
22	Planned	50%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 100.9779

10. REPORTING YEAR (SAIDI)

315.25278

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.89158

#### 12. REPORTING YEAR (SAIFI)

1.9833333

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #0905:

1. SUBSTATION NAME AND NUMBER

#### 09/FLOYD

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 859 Old Somerset Standford Road, Somerset, KY

- 3. CIRCUIT NAME AND NUMBER
  - NORTH HWY 27/ #0905
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

#### FEEDS NORTH ON HWY 27

5. TOTAL CIRCUIT LENGTH (MILES)

#### 48.42

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 577

7.. DATE OF LAST CIRCUIT TRIM (VM)

2016

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

1	Unknown Cause	
2	Other Animal	
3	Trees	48%
4	Lightning	5%
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	<b>10%</b>
14	Bird	
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	14%
18	Line Fuse	5%
19	Broke Pole	5%
20	Wind	
21	Load	
22	Planned	14%

#### 

#### 2.5095321

13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #1002:

1. SUBSTATION NAME AND NUMBER

#### 10/NORTH ALBANY

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 1028 Third Street, Albany, KY 42602

#### 3. CIRCUIT NAME AND NUMBER

DUVALL VALLEY / #1002

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

#### FEEDS UP OLD MONTICELLO RD.

#### 5. TOTAL CIRCUIT LENGTH (MILES)

51.97

6. CUSTOMER COUNT FOR THIS CIRCUIT

746

7.. DATE OF LAST CIRCUIT TRIM (VM)

2015

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

1	Unknown Cause	2%
2	Other Animal	
3	Trees	47%
4	Lightning	2%
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	6%
14	Bird	4%
15	Major Storm	6%
16	Line Down	2%
17	Transformer Fuse Blown	11%
18	Line Fuse	15%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	4%

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 160.23582

   10. REPORTING YEAR (SAIDI) 133.53074

   11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 7.91874

   12. REPORTING YEAR (SAIFI) 8.4758713
- **13. CORRECTIVE ACTION PLAN**

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #1105:

1. SUBSTATION NAME AND NUMBER

#### **11/SOUTH ALBANY**

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 235 West Harper Lane, Albany, KY 42602

3. CIRCUIT NAME AND NUMBER

#### STATIC / #1105

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

#### FEEDS SOUTH ON 127

5. TOTAL CIRCUIT LENGTH (MILES)

57.79

6. CUSTOMER COUNT FOR THIS CIRCUIT

745

7.. DATE OF LAST CIRCUIT TRIM (VM)

2019

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

1	Unknown Cause	
2	Other Animal	
3	Trees	23%
4	Lightning	3%
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	3%
11	Customer Wiring	
13	Squirrel	
14	Bird	
15	Major Storm	26%
16	Line Down	10%
17	Transformer Fuse Blown	16%
18	Line Fuse	16%
19	Broke Pole	3%
20	Wind	
21	Load	
22	Planned	

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 98.69461

10. REPORTING YEAR (SAIDI)

133.69242

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.46526

#### 12. REPORTING YEAR (SAIFI)

2.633557

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #1203:

1. SUBSTATION NAME AND NUMBER

#### 12/SEWELLTON

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 44 Highway 55, Jamestown, KY 42629

#### 3. CIRCUIT NAME AND NUMBER

WOLF CREEK DAM / #1203

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

#### FEEDS WOLF CREEK DAM

5. TOTAL CIRCUIT LENGTH (MILES)

35.52

6. CUSTOMER COUNT FOR THIS CIRCUIT

436

7.. DATE OF LAST CIRCUIT TRIM (VM)

2015

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

1	Unknown Cause	
2	Other Animal	
3	Trees	40%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	10%
14	Bird	
15	Major Storm	7%
16	Line Down	7%
17	Transformer Fuse Blown	3%
18	Line Fuse	17%
19	Broke Pole	3%
20	Wind	7%
21	Load	
22	Planned	7%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) **128.54513** 10. REPORTING YEAR (SAIDI) **249.21445** 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) **1.4299** 12. DEPODITING YEAR (CAUEI)

12. REPORTING YEAR (SAIFI)

3.2637615

13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #1301:

1. SUBSTATION NAME AND NUMBER

#### 13/ZULA

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 191 HWY 1009 N, Monticello, KY 42653

3. CIRCUIT NAME AND NUMBER

#### SUSIE / #1301

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

#### FEEDS EAST HWY 90

5. TOTAL CIRCUIT LENGTH (MILES)

#### 45.15

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 553

7.. DATE OF LAST CIRCUIT TRIM (VM)

2017

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

1	Unknown Cause	3%
2	Other Animal	
3	Trees	21%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	5%
11	Customer Wiring	
13	Squirrel	13%
14	Bird	5%
15	Major Storm	5%
16	Line Down	3%
17	Transformer Fuse Blown	8%
18	Line Fuse	8%
19	Broke Pole	16%
20	Wind	
21	Load	
22	Planned	13%

 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 295.077933
 10. REPORTING YEAR (SAIDI) 927.98541
 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.13238
 12. REPORTING YEAR (SAIFI) 2.2947559
 13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #1404:**

1. SUBSTATION NAME AND NUMBER

#### 14/MONTICELLO

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 422 Hardwood Drive, Monticello, KY 42633

3. CIRCUIT NAME AND NUMBER

#### SPAN HILL / #1404

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

FEEDS SOUTH EAST OF WAYNE CO

#### 5. TOTAL CIRCUIT LENGTH (MILES) 136.08

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 1167

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2013

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

1	Unknown Cause	6%
2	Other Animal	
3	Trees	28%
4	Lightning	9%
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	4%
11	Customer Wiring	
13	Squirrel	8%
14	Bird	9%
15	Major Storm	8%
16	Line Down	8%
17	Transformer Fuse Blown	8%
18	Line Fuse	9%
19	Broke Pole	
20	Wind	2%
21	Load	
22	Planned	2%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 382.58507

10. REPORTING YEAR (SAIDI)

494.60251

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

3.16946

#### 12. REPORTING YEAR (SAIFI)

3.6983719

**13. CORRECTIVE ACTION PLAN** 

CKT WILL BE VISUALLY INSPECTED SUBSTATION RECONFIGURATION TO OCCUR 2020

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #1504:

1. SUBSTATION NAME AND NUMBER

#### 15/BRONSTON #1

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 2373 HWY 790, Somerset, KY 42501

#### 3. CIRCUIT NAME AND NUMBER

TATEVILLE / #1504

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

#### FEEDS NORTH TOWARD ANTIOCH

#### 5. TOTAL CIRCUIT LENGTH (MILES)

50.16

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 1008

- 7.. DATE OF LAST CIRCUIT TRIM (VM)
- 8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS NUMBERS REPRESENTED BY EACH CAUSE

1	Unknown Cause	
2	Other Animal	
3	Trees	45%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	3%
11	Customer Wiring	
13	Squirrel	3%
14	Bird	
15	Major Storm	18%
16	Line Down	
17	Transformer Fuse Blown	8%
18	Line Fuse	5%
19	Broke Pole	3%
20	Wind	5%
21	Load	
22	Planned	13%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 336.45625 10. REPORTING YEAR (SAIDI)

653.8501

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

#### 2.86147

12. REPORTING YEAR (SAIFI)

5.375

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #1506:

1. SUBSTATION NAME AND NUMBER

#### 15/BRONSTON #2

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 2373 HWY 790, Somerset, KY 42501

#### 3. CIRCUIT NAME AND NUMBER

**KIDDER / #1506** 

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

#### FEEDS HWY 790

5. TOTAL CIRCUIT LENGTH (MILES)

35.58

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 600

7.. DATE OF LAST CIRCUIT TRIM (VM)

2011

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

1	Unknown Cause	
2	Other Animal	
3	Trees	66%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	5%
11	Customer Wiring	3%
13	Squirrel	3%
14	Bird	
15	Major Storm	8%
16	Line Down	3%
17	Transformer Fuse Blown	5%
18	Line Fuse	5%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	3%

# 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 272.80289 10. REPORTING YEAR (SAIDI) 532.462 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.45051 12. REPORTING YEAR (SAIFI) 3.8883333

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #1507:

1. SUBSTATION NAME AND NUMBER

#### 15/BRONSTON #2

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 2373 HWY 790, Somerset, KY 42501

#### 3. CIRCUIT NAME AND NUMBER

JACKSBORO RD / #1507

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

#### FEEDS JACKSBORO RD

5. TOTAL CIRCUIT LENGTH (MILES)

#### 32.45

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 612

7.. DATE OF LAST CIRCUIT TRIM (VM)

2015

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

1	Unknown Cause	
2	Other Animal	
3	Trees	39%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	13%
14	Bird	4%
15	Major Storm	9%
16	Line Down	
17	Transformer Fuse Blown	26%
18	Line Fuse	9%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	

## 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 66.05171 10. REPORTING YEAR (SAIDI)

#### 71.802941

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

#### 0.92707

12. REPORTING YEAR (SAIFI)

1.3839869

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #1802:

1. SUBSTATION NAME AND NUMBER

#### **18/PINE KNOT**

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 245 Pine Tree Road, Pine Knot, KY 42635

#### 3. CIRCUIT NAME AND NUMBER

EAST HWY 92 / #1802

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

#### FEEDS EAST ON HWY 92

#### 5. TOTAL CIRCUIT LENGTH (MILES)

13.99

6. CUSTOMER COUNT FOR THIS CIRCUIT

382

7.. DATE OF LAST CIRCUIT TRIM (VM)

2017

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

1	Unknown Cause	
2	Other Animal	
3	Trees	44%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	6%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	6%
14	Bird	19%
15	Major Storm	6%
16	Line Down	
17	Transformer Fuse Blown	6%
18	Line Fuse	
19	Broke Pole	6%
20	Wind	
21	Load	
22	Planned	6%

## 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 67.02254 10. REPORTING YEAR (SAIDI) 138.28194

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.87181

#### 12. REPORTING YEAR (SAIFI)

1.6649215

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #1804:

1. SUBSTATION NAME AND NUMBER

#### **18/PINE KNOT**

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 245 Pine Tree Road, Pine Knot, KY 42635

#### 3. CIRCUIT NAME AND NUMBER

STRUNK / #1804

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

#### FEEDS SOUTH OF PINE KNOT

#### 5. TOTAL CIRCUIT LENGTH (MILES)

92.83

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 1541

7.. DATE OF LAST CIRCUIT TRIM (VM)

2015

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

1	Unknown Cause	2%
2	Other Animal	
3	Trees	38%
4	Lightning	4%
5	Car Hit Pole	
6	SOURCE	2%
9	Defective Equipment	
10	Transformer	2%
11	Customer Wiring	
13	Squirrel	4%
14	Bird	2%
15	Major Storm	19%
16	Line Down	2%
17	Transformer Fuse Blown	6%
18	Line Fuse	10%
19	Broke Pole	2%
20	Wind	2%
21	Load	
22	Planned	6%

## 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) **174.78594** 10. REPORTING YEAR (SAIDI) **151.80499** 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) **2.36913** 12. REPORTING YEAR (SAIFI) **3.2251785**

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #1805:

1. SUBSTATION NAME AND NUMBER

#### **18/PINE KNOT**

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 245 Pine Tree Road, Pine Knot, KY 42635

3. CIRCUIT NAME AND NUMBER

WHITLEY CITY / #1805

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

#### FEEDS TOWARD WHITLEY CITY

#### 5. TOTAL CIRCUIT LENGTH (MILES)

9.77

6. CUSTOMER COUNT FOR THIS CIRCUIT

240

7.. DATE OF LAST CIRCUIT TRIM (VM)

2018

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

1	Unknown Cause	
_		
2	Other Animal	
3	Trees	17%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	17%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	33%
14	Bird	
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	33%
18	Line Fuse	
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) **63.77321** 10. REPORTING YEAR (SAIDI) **126.23646** 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) **0.53737** 12. REPORTING YEAR (SAIFI) **1.483333**

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #1904:

1. SUBSTATION NAME AND NUMBER

#### 19/OAK HILL

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 230 North Nomans Lane, Somerset, KY 42501

#### 3. CIRCUIT NAME AND NUMBER

TO GOLDEN HEIGHTS / #1904

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

#### FEEDS TOWARDS OAK HILL RD.

#### 5. TOTAL CIRCUIT LENGTH (MILES)

20.34

6. CUSTOMER COUNT FOR THIS CIRCUIT

899

7.. DATE OF LAST CIRCUIT TRIM (VM)

2011

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

1	Unknown Cause	
2	Other Animal	
3	Trees	32%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	4%
11	Customer Wiring	
13	Squirrel	<b>12%</b>
14	Bird	
15	Major Storm	
16	Line Down	4%
17	Transformer Fuse Blown	<b>12%</b>
18	Line Fuse	24%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	12%

## 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 92.02611 10. REPORTING YEAR (SAIDI) 128.53637 11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.95468

#### 12. REPORTING YEAR (SAIFI)

1.1245829

#### **13. CORRECTIVE ACTION PLAN**

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #2002:**

**1. SUBSTATION NAME AND NUMBER** 

#### 20/ASAHI

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 1272 HWY 461, Somerset, KY 42503

#### **3. CIRCUIT NAME AND NUMBER**

**TOYOTETSU / #2002** 

- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
  - FEEDS TTAI
- 5. TOTAL CIRCUIT LENGTH (MILES)

0.2

6. CUSTOMER COUNT FOR THIS CIRCUIT

1 7.. DATE OF LAST CIRCUIT TRIM (VM)

- N/A
- 8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS NUMBERS REPRESENTED BY EACH CAUSE
  - 1 Unknown Cause
  - 2 Other Animal
  - 3 Trees
  - 4 Lightning
  - 5 Car Hit Pole
  - 6 SOURCE
  - 9 Defective Equipment

100%

- 10 Transformer
- 11 Customer Wiring
- 13 Squirrel 14 Bird
- 15 Major Storm 16 Line Down
- 17 Transformer Fuse Blown
- 18 Line Fuse
- 19 Broke Pole
- 20 Wind
- 21 Load
- 22 Planned

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 12.60333

**10. REPORTING YEAR (SAIDI)** 

63.016667

- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
  - 0.2

12. REPORTING YEAR (SAIFI)

1

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #2003:

1. SUBSTATION NAME AND NUMBER

#### 20/ASAHI

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 1272 HWY 461, Somerset, KY 42503

#### 3. CIRCUIT NAME AND NUMBER

TECHNICAL PARK / #2003

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

#### FEEDS ACROSS HWY 461

#### 5. TOTAL CIRCUIT LENGTH (MILES)

6.29

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 44

- 7.. DATE OF LAST CIRCUIT TRIM (VM)
- 8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS NUMBERS REPRESENTED BY EACH CAUSE

1	Unknown Cause	
2	Other Animal	
3	Trees	40%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	20%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	20%
14	Bird	
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	
18	Line Fuse	20%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	

# 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 64.6025 10. REPORTING YEAR (SAIDI) 86.060227 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.71334 12. REPORTING YEAR (SAIFI) 3.0681818 13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #2004:**

**1. SUBSTATION NAME AND NUMBER** 

#### 20/ASAHI

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 1272 HWY 461, Somerset, KY 42503

#### **3. CIRCUIT NAME AND NUMBER**

TO DAHL RD. / #2004

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

#### FEEDS HENDRICKSON

#### 5. TOTAL CIRCUIT LENGTH (MILES)

0.84

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 7

7.. DATE OF LAST CIRCUIT TRIM (VM)

N/A

- 8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS NUMBERS REPRESENTED BY EACH CAUSE
  - 1 Unknown Cause
  - 2 Other Animal
  - 3 Trees
  - 4 Lightning
  - 5 Car Hit Pole
  - 6 SOURCE
  - 9 Defective Equipment

100%

- 10 Transformer
- 11 Customer Wiring
- 13 Squirrel 14 Bird
- 15 Major Storm
- 16 Line Down
- 17 Transformer Fuse Blown
- 18 Line Fuse
- 19 Broke Pole
- 20 Wind
- 21 Load 22 Planned

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 13.77417 **10. REPORTING YEAR (SAIDI)** 

63.016667

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.45

12. REPORTING YEAR (SAIFI)

1

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #2005:**

1. SUBSTATION NAME AND NUMBER

#### 20/ASAHI

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 1272 HWY 461, Somerset, KY 42503

#### **3. CIRCUIT NAME AND NUMBER**

**ALUMITECH / #2005** 

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

#### FEEDS GATORMADE

5. TOTAL CIRCUIT LENGTH (MILES)

0.45

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 4

7.. DATE OF LAST CIRCUIT TRIM (VM)

N/A

- 8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS NUMBERS REPRESENTED BY EACH CAUSE
  - 1 Unknown Cause
  - 2 Other Animal
  - 3 Trees
  - 4 Lightning
  - 5 Car Hit Pole
  - 6 SOURCE
  - 9 Defective Equipment

100%

- 10 Transformer
- 11 Customer Wiring
- 13 Squirrel 14 Bird
- 15 Major Storm
- 16 Line Down
- 17 Transformer Fuse Blown
- 18 Line Fuse
- 19 Broke Pole
- 20 Wind
- 21 Load
- 22 Planned

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

38.56333

**10. REPORTING YEAR (SAIDI)** 

63.016667

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.13333

12. REPORTING YEAR (SAIFI)

1 **13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #2104:

1. SUBSTATION NAME AND NUMBER

#### **21/WEST SOMERSET**

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 160 Patterson Branch Road, Somerset, KY 42501

#### 3. CIRCUIT NAME AND NUMBER

**LEES FORD / #2104** 

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

#### FEEDS LEES FORD MARINA

#### 5. TOTAL CIRCUIT LENGTH (MILES)

13.88

6. CUSTOMER COUNT FOR THIS CIRCUIT

402

- 7.. DATE OF LAST CIRCUIT TRIM (VM)
- 8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS NUMBERS REPRESENTED BY EACH CAUSE

1	Unknown Cause	
2	Other Animal	
3	Trees	36%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	5%
11	Customer Wiring	
13	Squirrel	18%
14	Bird	
15	Major Storm	9%
16	Line Down	
17	Transformer Fuse Blown	
18	Line Fuse	18%
19	Broke Pole	14%
20	Wind	
21	Load	
22	Planned	

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 172.91701 10. REPORTING YEAR (SAIDI) 177.25489 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.76833 12. REPORTING YEAR (SAIFI) 1.4875622 13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #2202:**

1. SUBSTATION NAME AND NUMBER

#### 22/SALEM

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 1313 S. Highway 76, Russell Springs, Ky 42642

**3. CIRCUIT NAME AND NUMBER** 

#### TO ONO / #2202

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

#### **FEEDS SOUTH ON HWY 76**

5. TOTAL CIRCUIT LENGTH (MILES) 51.7

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 634

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2010

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

1	Unknown Cause	5%
2	Other Animal	
3	Trees	24%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	5%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	5%
14	Bird	10%
15	Major Storm	10%
16	Line Down	5%
17	Transformer Fuse Blown	24%
18	Line Fuse	10%
19	Broke Pole	5%
20	Wind	
21	Load	
22	Planned	

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 38.94892

**10. REPORTING YEAR (SAIDI)** 

#### 86.667192

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.623

#### 12. REPORTING YEAR (SAIFI)

- 0.9085174
- **13. CORRECTIVE ACTION PLAN**

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #2203:**

1. SUBSTATION NAME AND NUMBER

#### 22/SALEM

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 1313 S. Highway 76, Russell Springs, Ky 42642

**3. CIRCUIT NAME AND NUMBER** 

#### ALLIGATOR / #2203

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

**FEEDS SOUTH ON HWY 76** 

#### 5. TOTAL CIRCUIT LENGTH (MILES) 42.01

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 852

7.. DATE OF LAST CIRCUIT TRIM (VM)

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

1	Unknown Cause	7%
2	Other Animal	
3	Trees	33%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	13%
9	Defective Equipment	
10	Transformer	7%
11	Customer Wiring	
13	Squirrel	
14	Bird	
15	Major Storm	7%
16	Line Down	
17	Transformer Fuse Blown	20%
18	Line Fuse	7%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	7%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 207.65667

**10. REPORTING YEAR (SAIDI)** 

269.11976

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.767

#### 12. REPORTING YEAR (SAIFI)

2.2816901

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #2204:**

1. SUBSTATION NAME AND NUMBER

#### 22/SALEM

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 1313 S. Highway 76, Russell Springs, Ky 42642

- **3. CIRCUIT NAME AND NUMBER** 
  - SUPERIOR / #2204

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

#### FEEDS SUPERIOR BATTERY

5. TOTAL CIRCUIT LENGTH (MILES) 3.58

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 42

7.. DATE OF LAST CIRCUIT TRIM (VM)

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

1	Unknown Cause	
2	Other Animal	
3	Trees	
4	Lightning	
5	Car Hit Pole	
6	SOURCE	17%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	
14	Bird	
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	33%
18	Line Fuse	17%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	33%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

125.5689

#### **10. REPORTING YEAR (SAIDI)**

550.37897

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.00844

#### 12. REPORTING YEAR (SAIFI)

2.9285714

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #2205:**

1. SUBSTATION NAME AND NUMBER

#### 22/SALEM

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 1313 S. Highway 76, Russell Springs, Ky 42642

- 3. CIRCUIT NAME AND NUMBER
  - HWY 80 / #2205

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

#### FEEDS HWY 80

5. TOTAL CIRCUIT LENGTH (MILES)

## 25.19

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 436

7.. DATE OF LAST CIRCUIT TRIM (VM)

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

1	Unknown Cause		
2	Other Animal		
3	Trees	21%	
4	Lightning		
5	Car Hit Pole		
6	SOURCE	7%	
9	Defective Equipment		
10	Transformer		
11	Customer Wiring		
13	Squirrel	21%	
14	Bird	7%	
15	Major Storm		
16	Line Down		
17	Transformer Fuse Blown	29%	
18	Line Fuse		
19	Broke Pole	14%	
20	Wind		
21	Load		
22	Planned		

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

219.366856

#### 10. REPORTING YEAR (SAIDI)

54.882569

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.56273

#### 12. REPORTING YEAR (SAIFI)

2.1582569

13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #2301:

1. SUBSTATION NAME AND NUMBER

#### 23/CABIN HOLLOW

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 50 Commerce Lane, Somerset, KY 42501

## 3. CIRCUIT NAME AND NUMBER

#### EAST HWY 914 / #2301

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

FEEDS EAST ON HWY 914

#### 5. TOTAL CIRCUIT LENGTH (MILES) 16.56

#### т гор <sup>.</sup>

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 349

7.. DATE OF LAST CIRCUIT TRIM (VM)

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

1	Unknown Cause	
2	Other Animal	
3	Trees	24%
4	Lightning	4%
5	Car Hit Pole	
6	SOURCE	4%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	24%
14	Bird	4%
15	Major Storm	8%
16	Line Down	12%
17	Transformer Fuse Blown	8%
18	Line Fuse	8%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	4%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 103.57669

#### 10. REPORTING YEAR (SAIDI)

#### 250.11089

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.57415

#### 12. REPORTING YEAR (SAIFI)

#### 4.1174785

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #2302:**

1. SUBSTATION NAME AND NUMBER

#### 23/CABIN HOLLOW

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 50 Commerce Lane, Somerset, KY 42501

#### 3. CIRCUIT NAME AND NUMBER

#### RUSH BRANCH / #2302

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

#### FEEDS RUSH BRANCH RD.

#### 5. TOTAL CIRCUIT LENGTH (MILES)

## 61.43

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 716

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2014

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

1	Unknown Cause	
2	Other Animal	
3	Trees	59%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	6%
11	Customer Wiring	
13	Squirrel	9%
14	Bird	
15	Major Storm	6%
16	Line Down	
17	Transformer Fuse Blown	9%
18	Line Fuse	3%
19	Broke Pole	3%
20	Wind	
21	Load	
22	Planned	3%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 282.11803

#### 10. REPORTING YEAR (SAIDI)

#### 292.34681

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.51005

#### 12. REPORTING YEAR (SAIFI)

2.472067

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #2303:

1. SUBSTATION NAME AND NUMBER

#### 23/CABIN HOLLOW

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 50 Commerce Lane, Somerset, KY 42501

3. CIRCUIT NAME AND NUMBER

CEDAR GROVE / #2303

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

- FEEDS ELIHU CABIN HOLLOW RD.
- 5. TOTAL CIRCUIT LENGTH (MILES) 40.37

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 602

7.. DATE OF LAST CIRCUIT TRIM (VM)

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

1	Unknown Cause	
2	Other Animal	
3	Trees	36%
4	Lightning	8%
5	Car Hit Pole	
6	SOURCE	4%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	20%
14	Bird	
15	Major Storm	4%
16	Line Down	
17	Transformer Fuse Blown	
18	Line Fuse	8%
19	Broke Pole	4%
20	Wind	
21	Load	
22	Planned	16%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 143.7608

10. REPORTING YEAR (SAIDI)

352.23826

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.15279

#### 12. REPORTING YEAR (SAIFI)

3.255814

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #2304:

- 1. SUBSTATION NAME AND NUMBER 23/CABIN HOLLOW 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) 50 Commerce Lane, Somerset, KY 42501 **3. CIRCUIT NAME AND NUMBER** HARTCO / #2304 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) FEEDS OLD HARTCO BUILDING 5. TOTAL CIRCUIT LENGTH (MILES) 0.82 6. CUSTOMER COUNT FOR THIS CIRCUIT 4 7.. DATE OF LAST CIRCUIT TRIM (VM) 2013 8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS NUMBERS REPRESENTED BY EACH CAUSE 1 Unknown Cause 2 Other Animal
  - 3 Trees 50% 4 Lightning 5 Car Hit Pole 6 SOURCE 9 Defective Equipment 10 Transformer 11 Customer Wiring 13 Squirrel 14 Bird 15 Major Storm 16 Line Down 17 Transformer Fuse Blown 50% 18 Line Fuse 19 Broke Pole 20 Wind 21 Load
  - 22 Planned

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

19.91417

10. REPORTING YEAR (SAIDI)

99.570833

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.25

12. REPORTING YEAR (SAIFI)

1.25

**13. CORRECTIVE ACTION PLAN** 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #2402:

1. SUBSTATION NAME AND NUMBER

#### 24/SOUTH FLOYD

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 355 West Todd Road, Somerset, KY 42501

#### 3. CIRCUIT NAME AND NUMBER

TO BULL RD. / #2402

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

#### FEEDS OLD BULL RD.

5. TOTAL CIRCUIT LENGTH (MILES)

28.89

6. CUSTOMER COUNT FOR THIS CIRCUIT

337

7.. DATE OF LAST CIRCUIT TRIM (VM)

2015

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

1 Unknown Cause	
2 Other Animal	
3 Trees	19%
4 Lightning	13%
5 Car Hit Pole	
6 SOURCE	
9 Defective Equipment	
10 Transformer	
11 Customer Wiring	
13 Squirrel	
14 Bird	13%
15 Major Storm	
16 Line Down	13%
17 Transformer Fuse Blown	13%
18 Line Fuse	25%
19 Broke Pole	
20 Wind	
21 Load	
22 Planned	6%

#### 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### **CIRCUIT #2403:**

1. SUBSTATION NAME AND NUMBER

#### 24/SOUTH FLOYD

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 355 West Todd Road, Somerset, KY 42501

#### 3. CIRCUIT NAME AND NUMBER

#### TO CIRCLEVILLE / #2403

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

#### FEEDS EAST ON HWY 635

#### 5. TOTAL CIRCUIT LENGTH (MILES)

## 29.68

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 366

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2015

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

1	Unknown Cause	
2	Other Animal	
3	Trees	25%
4	Lightning	13%
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	
14	Bird	
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	13%
18	Line Fuse	13%
19	Broke Pole	13%
20	Wind	
21	Load	
22	Planned	25%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 39.20335

10. REPORTING YEAR (SAIDI)

#### 47.666029

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.68551

#### 12. REPORTING YEAR (SAIFI)

- 0.510929
- 13. CORRECTIVE ACTION PLAN

CKT WILL BE VISUALLY INSPECTED FURTHER SECTIONALIZING TO OCCUR

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #2404:

1. SUBSTATION NAME AND NUMBER

#### 24/SOUTH FLOYD

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 355 West Todd Road, Somerset, KY 42501

3. CIRCUIT NAME AND NUMBER

#### MT ZION / #2404

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

#### FEEDS TOWARD MT ZION

5. TOTAL CIRCUIT LENGTH (MILES)

46.54

6. CUSTOMER COUNT FOR THIS CIRCUIT

713

7.. DATE OF LAST CIRCUIT TRIM (VM)

#### 2015

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

1 Unknown Cause	
2 Other Animal	
3 Trees	64%
4 Lightning	
5 Car Hit Pole	
6 SOURCE	
9 Defective Equipment	
10 Transformer	
11 Customer Wiring	
13 Squirrel	
14 Bird	
15 Major Storm	9%
16 Line Down	
17 Transformer Fuse Blown	18%
18 Line Fuse	
19 Broke Pole	9%
20 Wind	
21 Load	
22 Planned	

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 38.42507 10. REPORTING YEAR (SAIDI) 41.242146 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.61733 12. REPORTING YEAR (SAIFI) 0.197756 13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #2405:

1. SUBSTATION NAME AND NUMBER

#### 24/SOUTH FLOYD

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 355 West Todd Road, Somerset, KY 42501

- 3. CIRCUIT NAME AND NUMBER
  - TO BUNCOMBE / #2405
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

#### FEEDS NORTH ON HWY 1247

#### 5. TOTAL CIRCUIT LENGTH (MILES)

44.86

6. CUSTOMER COUNT FOR THIS CIRCUIT

538

- 7.. DATE OF LAST CIRCUIT TRIM (VM)
- 8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS NUMBERS REPRESENTED BY EACH CAUSE

1	Unknown Cause	
2	Other Animal	
3	Trees	21%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	21%
14	Bird	
15	Major Storm	7%
16	Line Down	7%
17	Transformer Fuse Blown	7%
18	Line Fuse	29%
19	Broke Pole	
20	Wind	7%
21	Load	
22	Planned	

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) **102.54219** 10. REPORTING YEAR (SAIDI) **106.39195** 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) **0.97701** 12. REPORTING YEAR (SAIFI) **1.1040892**
- 13. CORRECTIVE ACTION PLAN

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #2502:

1. SUBSTATION NAME AND NUMBER

#### 25/SOUTH OAK HILL

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 78 Ferry Hill Drive, Somerset, KY 42501

3. CIRCUIT NAME AND NUMBER

TO WADES WOODS / #2502

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

#### FEEDS WADES WOODS SUBDIVISION

5. TOTAL CIRCUIT LENGTH (MILES)

27.43

6. CUSTOMER COUNT FOR THIS CIRCUIT

752

7.. DATE OF LAST CIRCUIT TRIM (VM)

2015

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

1	Unknown Cause	
2	Other Animal	
3	Trees	22%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	22%
14	Bird	6%
15	Major Storm	
16	Line Down	11%
17	Transformer Fuse Blown	6%
18	Line Fuse	22%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	11%

#### 

#### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

#### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### CIRCUIT #2702:

1. SUBSTATION NAME AND NUMBER

#### 27/SLAT

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

#### 101 Whispering Pines, Monticello, KY 42633

#### 3. CIRCUIT NAME AND NUMBER

PARNELL / #2702

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

#### FEEDS PARNELL

5. TOTAL CIRCUIT LENGTH (MILES)

#### 104.15

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 1573

7.. DATE OF LAST CIRCUIT TRIM (VM)

2014

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

1	Unknown Cause	7%
2	Other Animal	
3	Trees	<b>50%</b>
4	Lightning	2%
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	3%
14	Bird	
15	Major Storm	17%
16	Line Down	5%
17	Transformer Fuse Blown	3%
18	Line Fuse	5%
19	Broke Pole	2%
20	Wind	
21	Load	
22	Planned	5%

#### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 266.06762

10. REPORTING YEAR (SAIDI)

#### 310.62606

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

#### 2.90305

12. REPORTING YEAR (SAIFI)

#### 3.2015257

**13. CORRECTIVE ACTION PLAN** 

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #2703:

1. SUBSTATION NAME AND NUMBER

### 27/SLAT

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 101 Whispering Pines, Monticello, KY 42633

3. CIRCUIT NAME AND NUMBER

### COFFEY MOUNTAIN / #2703

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

### FEEDS COFFEY MOUNTAI

5. TOTAL CIRCUIT LENGTH (MILES)

55.21

6. CUSTOMER COUNT FOR THIS CIRCUIT

559

7.. DATE OF LAST CIRCUIT TRIM (VM)

2014

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

1	Unknown Cause	
2	Other Animal	
3	Trees	44%
4	Lightning	3%
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	3%
14	Bird	
15	Major Storm	18%
16	Line Down	3%
17	Transformer Fuse Blown	18%
18	Line Fuse	9%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	3%

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #2901:

1. SUBSTATION NAME AND NUMBER

### 29/CEMETERY ROAD

### 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 43 Parson Road, Waynesburg, KY 40489

3. CIRCUIT NAME AND NUMBER

### PARLOR GROVE ROAD / #2901

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

### FEEDS PARLOR GROVE RD.

5. TOTAL CIRCUIT LENGTH (MILES)

### 59.87

6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 577

7.. DATE OF LAST CIRCUIT TRIM (VM)

### 2017

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

1	Unknown Cause	
2	Other Animal	
3	Trees	57%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	4%
9	Defective Equipment	
10	Transformer	4%
11	Customer Wiring	
13	Squirrel	4%
14	Bird	
15	Major Storm	
16	Line Down	4%
17	Transformer Fuse Blown	14%
18	Line Fuse	14%
19	Broke Pole	
20	Wind	
21	Load	

22 Planned

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 313.78237

10. REPORTING YEAR (SAIDI)

253.59997

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.16691

12. REPORTING YEAR (SAIFI)

2.2842288

```
13. CORRECTIVE ACTION PLAN
```

THIS SUBSTATION IS FED FROM FOREIGN TRANSMISSION THIS CKT WILL BE VISUALLY INSPECTED

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### **CIRCUIT #2902:**

1. SUBSTATION NAME AND NUMBER

### **29/CEMETERY ROAD**

### 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 43 Parson Road, Waynesburg, KY 40489

### **3. CIRCUIT NAME AND NUMBER**

### WAYNESBURG / #2902

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

### FEEDS TOWARD WAYNESBURG

### 5. TOTAL CIRCUIT LENGTH (MILES) 49.72

6. CUSTOMER COUNT FOR THIS CIRCUIT

### 471

7.. DATE OF LAST CIRCUIT TRIM (VM)

### 2017

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

1	Unknown Cause	
2	Other Animal	
3	Trees	31%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	8%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	15%
14	Bird	
15	Major Storm	8%
16	Line Down	
17	Transformer Fuse Blown	15%
18	Line Fuse	
19	Broke Pole	8%
20	Wind	
21	Load	
22	Planned	15%

### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 351.69985

**10. REPORTING YEAR (SAIDI)** 

362.40878

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.15618

12. REPORTING YEAR (SAIFI)

2.0976648

**13. CORRECTIVE ACTION PLAN** 

THIS SUBSTATION IS FED FROM FOREIGN TRANSMISSION THIS CKT WILL BE VISUALLY INSPECTED

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3002:

1. SUBSTATION NAME AND NUMBER

### **30/JAMESTOWN**

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 764 S. Main Street, Jamestown, KY 42629

- 3. CIRCUIT NAME AND NUMBER
  - MOORE SCHOOL RD. / #3002
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

### FEEDS MOORE SCHOOL RD.

### 5. TOTAL CIRCUIT LENGTH (MILES)

25.82

6. CUSTOMER COUNT FOR THIS CIRCUIT

403

7.. DATE OF LAST CIRCUIT TRIM (VM)

2009

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

1	Unknown Cause		
2	Other Animal		
3	Trees	14%	
4	Lightning	7%	
5	Car Hit Pole		
6	SOURCE	7%	
9	Defective Equipment		
10	Transformer	7%	
11	Customer Wiring		
13	Squirrel	14%	
14	Bird		
15	Major Storm	36%	
16	Line Down	7%	
17	Transformer Fuse Blown	7%	
18	Line Fuse		
19	Broke Pole		
20	Wind		
21	Load		

22 Planned

## 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

120.90756

10. REPORTING YEAR (SAIDI)

91.059553

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.91768

### 12. REPORTING YEAR (SAIFI)

1

13. CORRECTIVE ACTION PLAN

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3003:

1. SUBSTATION NAME AND NUMBER

### **30/JAMESTOWN**

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 764 S. Main Street, Jamestown, KY 42629

3. CIRCUIT NAME AND NUMBER

### PLEASANT HILL / #3003

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

### FEEDS EAST ON HWY 619

5. TOTAL CIRCUIT LENGTH (MILES)

56.9

6. CUSTOMER COUNT FOR THIS CIRCUIT

### 904

7.. DATE OF LAST CIRCUIT TRIM (VM)

2017

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

1	Unknown Cause	
2	Other Animal	3%
3	Trees	39%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	3%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	17%
14	Bird	
15	Major Storm	19%
16	Line Down	
17	Transformer Fuse Blown	8%
18	Line Fuse	6%
19	Broke Pole	3%
20	Wind	
21	Load	
22	Planned	3%

# 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 103.05679 10. REPORTING YEAR (SAIDI) 145.44996 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.37976 12. REPORTING YEAR (SAIFI) 1.8606195

13. CORRECTIVE ACTION PLAN

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3005:

1. SUBSTATION NAME AND NUMBER

### **30/JAMESTOWN**

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 764 S. Main Street, Jamestown, KY 42629

3. CIRCUIT NAME AND NUMBER

### JAMESTOWN DOCK / #3005

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

### FEEDS JAMESTOWN DOCK

5. TOTAL CIRCUIT LENGTH (MILES)

### 20.52

6. CUSTOMER COUNT FOR THIS CIRCUIT

### 590

7.. DATE OF LAST CIRCUIT TRIM (VM)

2017

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

1	Unknown Cause	3%
2	Other Animal	
3	Trees	32%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	3%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	23%
14	Bird	3%
15	Major Storm	6%
16	Line Down	3%
17	Transformer Fuse Blown	6%
18	Line Fuse	6%
19	Broke Pole	6%
20	Wind	3%
21	Load	
22	Planned	3%

### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) **181.32487** 10. REPORTING YEAR (SAIDI) **454.65291** 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) **1.7357** 12. REPORTING YEAR (SAIFI) **5.059322**

13. CORRECTIVE ACTION PLAN

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3101:

1. SUBSTATION NAME AND NUMBER

### 31/WIBORG

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 162 Beulah Heights Road, Whitley City, KY 42653

3. CIRCUIT NAME AND NUMBER

### TO FLATROCK / #3101

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

### FEEDS SOUTH TOWARDS FLATROCK

### 5. TOTAL CIRCUIT LENGTH (MILES)

53.61

6. CUSTOMER COUNT FOR THIS CIRCUIT

### 1031

7.. DATE OF LAST CIRCUIT TRIM (VM)

2018

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

1	Unknown Cause	2%
2	Other Animal	
3	Trees	20%
4	Lightning	22%
5	Car Hit Pole	2%
6	SOURCE	
9	Defective Equipment	
10	Transformer	2%
11	Customer Wiring	
13	Squirrel	
14	Bird	2%
15	Major Storm	10%
16	Line Down	
17	Transformer Fuse Blown	10%
18	Line Fuse	6%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	22%

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 717.20619
   10. REPORTING YEAR (SAIDI) 356.06182
   11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 3.05771
   12. REPORTING YEAR (SAIFI) 4.7972842
- **13. CORRECTIVE ACTION PLAN**

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3103:

1. SUBSTATION NAME AND NUMBER

### 31/WIBORG

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 162 Beulah Heights Road, Whitley City, KY 42653

3. CIRCUIT NAME AND NUMBER

GREENWOOD / #3103

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

### FEEDS TOWARD GREENWOOD

### 5. TOTAL CIRCUIT LENGTH (MILES)

119.16

6. CUSTOMER COUNT FOR THIS CIRCUIT

### 1768

7.. DATE OF LAST CIRCUIT TRIM (VM)

2017

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

1	Unknown Cause	
2	Other Animal	1%
3	Trees	60%
4	Lightning	3%
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	1%
13	Squirrel	6%
14	Bird	1%
15	Major Storm	10%
16	Line Down	3%
17	Transformer Fuse Blown	4%
18	Line Fuse	7%
19	Broke Pole	5%
20	Wind	
21	Load	
22	Planned	1%

# 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 909.59635 10. REPORTING YEAR (SAIDI) 625.13535 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 5.94956 12. REPORTING YEAR (SAIFI)

6.1159502

**13. CORRECTIVE ACTION PLAN** 

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3202:

1. SUBSTATION NAME AND NUMBER

### 32/NELSON VALLEY

### 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 134 Stilesville Road, Somerset, KY 42501

### 3. CIRCUIT NAME AND NUMBER

### STILESVILLE RD. / #3202

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

### FEEDS TOWARD STILESVILLE

### 5. TOTAL CIRCUIT LENGTH (MILES)

50.53

### 6. CUSTOMER COUNT FOR THIS CIRCUIT

#### 699

7.. DATE OF LAST CIRCUIT TRIM (VM)

### 2014

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

1	Unknown Cause	
2	Other Animal	
3	Trees	21%
4	Lightning	7%
5	Car Hit Pole	7%
6	SOURCE	7%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	21%
14	Bird	
15	Major Storm	7%
16	Line Down	
17	Transformer Fuse Blown	14%
18	Line Fuse	14%
19	Broke Pole	
20	Wind	
21	Load	

22 Planned

### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

### 159.80385

10. REPORTING YEAR (SAIDI)

160.41948

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.57703

### 12. REPORTING YEAR (SAIFI)

2.5035765

13. CORRECTIVE ACTION PLAN

CKT WILL BE VISUALLY INSPECTED THREE WAY SWITCH TO BE INSTALLED

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### **CIRCUIT #3204:**

1. SUBSTATION NAME AND NUMBER

### **32/NELSON VALLEY**

### 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 134 Stilesville Road, Somerset, KY 42501

### **3. CIRCUIT NAME AND NUMBER**

### EAGLES NEST / #3204

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

### **FEEDS NORTH ON HWY 39**

### 5. TOTAL CIRCUIT LENGTH (MILES) 14.92

#### 6. CUSTOMER COUNT FOR THIS CIRCUIT 363

### 7.. DATE OF LAST CIRCUIT TRIM (VM)

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

1	Unknown Cause		
2	Other Animal		
3	Trees	20%	
4	Lightning		
5	Car Hit Pole		
6	SOURCE	3%	
9	Defective Equipment		
10	Transformer		
11	Customer Wiring	3%	
13	Squirrel	20%	
14	Bird		
15	Major Storm	20%	
16	Line Down		
17	Transformer Fuse Blown	13%	
18	Line Fuse	7%	
19	Broke Pole	7%	
20	Wind		
21	Load		
22	Planned	7%	

### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

#### 149.66866

#### **10. REPORTING YEAR (SAIDI)**

### 227.75289

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

### 1.28397

### 12. REPORTING YEAR (SAIFI)

3.1790634

### **13. CORRECTIVE ACTION PLAN**

**CKT WILL BE VISUALLY INSPECTED** THREE WAY SWITCH TO BE INSTALLED

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3205:

1. SUBSTATION NAME AND NUMBER

### 32/NELSON VALLEY

### 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

- 134 Stilesville Road, Somerset, KY 42501
- 3. CIRCUIT NAME AND NUMBER

### RAINBOW TERRACE / #3205

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

- FEEDS SOUTH ON HWY 39
- 5. TOTAL CIRCUIT LENGTH (MILES) 14.67

#### -----

6. CUSTOMER COUNT FOR THIS CIRCUIT

### 325

7.. DATE OF LAST CIRCUIT TRIM (VM)

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

1	Unknown Cause	
2	Other Animal	
3	Trees	40%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	10%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	
14	Bird	
15	Major Storm	10%
16	Line Down	10%
17	Transformer Fuse Blown	10%
18	Line Fuse	20%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	

### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

72.33419

10. REPORTING YEAR (SAIDI)

67.575333

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.14357

- 12. REPORTING YEAR (SAIFI)
- 1.3015385
- **13. CORRECTIVE ACTION PLAN**

CKT WILL BE VISUALLY INSPECTED THREE WAY SWITCH TO BE INSTALLED

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3303:

1. SUBSTATION NAME AND NUMBER

### 33/ZOLLICOFFER

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 2675 HWY 235, Nancy, KY 42544

3. CIRCUIT NAME AND NUMBER

### NORTH TO NANCY / #3303

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

### FEEDS NORTH ON HWY 235

5. TOTAL CIRCUIT LENGTH (MILES)

35.79

6. CUSTOMER COUNT FOR THIS CIRCUIT

573

- 7.. DATE OF LAST CIRCUIT TRIM (VM)
- 8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS NUMBERS REPRESENTED BY EACH CAUSE

1	Unknown Cause	
2	Other Animal	
3	Trees	36%
4	Lightning	4%
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	4%
11	Customer Wiring	
13	Squirrel	12%
14	Bird	
15	Major Storm	8%
16	Line Down	8%
17	Transformer Fuse Blown	12%
18	Line Fuse	
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	16%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 82.5402 10. REPORTING YEAR (SAIDI) 193.54148 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.9154

12. REPORTING YEAR (SAIFI) 2.3019197

13. CORRECTIVE ACTION PLAN

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3402:

1. SUBSTATION NAME AND NUMBER

### 34/GAP OF RIDGE

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 71 Power Station Lane, Monticello, KY 42633

3. CIRCUIT NAME AND NUMBER

### CONLEY BOTTOM / #3402

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

### FEEDS TOWARDS MILL SPRINGS ON HWY 1275

### 5. TOTAL CIRCUIT LENGTH (MILES)

41.65

6. CUSTOMER COUNT FOR THIS CIRCUIT

### 874

7.. DATE OF LAST CIRCUIT TRIM (VM)

2012

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

1	Unknown Cause	
2	Other Animal	
3	Trees	29%
4	Lightning	2%
5	Car Hit Pole	2%
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	10%
14	Bird	
15	Major Storm	24%
16	Line Down	6%
17	Transformer Fuse Blown	10%
18	Line Fuse	6%
19	Broke Pole	8%
20	Wind	
21	Load	
22	Planned	4%

# 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 221.47637 10. REPORTING YEAR (SAIDI)

268.84132

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

### 2.40647

12. REPORTING YEAR (SAIFI)

2.5583524

13. CORRECTIVE ACTION PLAN

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3405:

1. SUBSTATION NAME AND NUMBER

### 34/GAP OF RIDGE

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 71 Power Station Lane, Monticello, KY 42633

3. CIRCUIT NAME AND NUMBER

BETSY / #3405

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

### FEEDS EAST ON HWY 90

5. TOTAL CIRCUIT LENGTH (MILES)

74.13

6. CUSTOMER COUNT FOR THIS CIRCUIT

845

7.. DATE OF LAST CIRCUIT TRIM (VM)

2015

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

1	Unknown Cause	4%
_	Other Animal	470
_		
3	Trees	34%
4	Lightning	4%
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	3%
11	Customer Wiring	
13	Squirrel	4%
14	Bird	1%
15	Major Storm	10%
16	Line Down	1%
17	Transformer Fuse Blown	18%
18	Line Fuse	13%
19	Broke Pole	1%
20	Wind	
21	Load	
22	Planned	3%

13. CORRECTIVE ACTION PLAN

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3503:

1. SUBSTATION NAME AND NUMBER

### 35/UPCHURCH

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 594 Wray Ridge Road, Albany, KY 42602

3. CIRCUIT NAME AND NUMBER

### MTN VIEW PARK / #3503

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

### FEEDS TOWARD MTN VIEW

### 5. TOTAL CIRCUIT LENGTH (MILES)

26.81

6. CUSTOMER COUNT FOR THIS CIRCUIT

### 331

7.. DATE OF LAST CIRCUIT TRIM (VM)

2015

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

1	Unknown Cause	
2	Other Animal	
3	Trees	24%
4	Lightning	6%
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	6%
11	Customer Wiring	
13	Squirrel	12%
14	Bird	
15	Major Storm	6%
16	Line Down	6%
17	Transformer Fuse Blown	24%
18	Line Fuse	6%
19	Broke Pole	12%
20	Wind	
21	Load	
22	Planned	

### 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 78.71843

10. REPORTING YEAR (SAIDI)

109.86193

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.33882

### 12. REPORTING YEAR (SAIFI)

1.7190332

**13. CORRECTIVE ACTION PLAN** 

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3601:

1. SUBSTATION NAME AND NUMBER

### **36/WEBBS CROSSROADS**

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 2925 N. Highway 127, Russell Springs, KY 42642

3. CIRCUIT NAME AND NUMBER

DECATUR / #3601

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

### FEEDS NORTH ON 127

5. TOTAL CIRCUIT LENGTH (MILES)

28.06

6. CUSTOMER COUNT FOR THIS CIRCUIT

330

7.. DATE OF LAST CIRCUIT TRIM (VM)

2014

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

1	Unknown Cause	
2	Other Animal	
3	Trees	17%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	8%
14	Bird	8%
15	Major Storm	
16	Line Down	17%
17	Transformer Fuse Blown	
18	Line Fuse	42%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	8%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 74.71567 10. REPORTING YEAR (SAIDI) 55.132172 11. CIRCUIT 5 YEAR AVERAGE (CALEI)

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.62476

12. REPORTING YEAR (SAIFI)

0.8484848

13. CORRECTIVE ACTION PLAN

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3602:

1. SUBSTATION NAME AND NUMBER

### **36/WEBBS CROSSROADS**

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 2925 N. Highway 127, Russell Springs, KY 42642

3. CIRCUIT NAME AND NUMBER

EAST HWY 76 / #3602

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

### FEEDS HWY 76

5. TOTAL CIRCUIT LENGTH (MILES)

19.12

6. CUSTOMER COUNT FOR THIS CIRCUIT

### 304

7.. DATE OF LAST CIRCUIT TRIM (VM)

2014

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

1	Unknown Cause	13%
2	Other Animal	
3	Trees	25%
4	Lightning	13%
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	
14	Bird	
15	Major Storm	
16	Line Down	
17	Transformer Fuse Blown	13%
18	Line Fuse	25%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	13%

# 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 95.71136 10. REPORTING YEAR (SAIDI)

249.34348 11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

### 0.97674

12. REPORTING YEAR (SAIFI)

1.8914474

**13. CORRECTIVE ACTION PLAN** 

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3604:

1. SUBSTATION NAME AND NUMBER

### **36/WEBBS CROSSROADS**

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 2925 N. Highway 127, Russell Springs, KY 42642

### 3. CIRCUIT NAME AND NUMBER

HUMBLE / #3604

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

### FEEDS SOUTH ON 127

5. TOTAL CIRCUIT LENGTH (MILES)

13.55

6. CUSTOMER COUNT FOR THIS CIRCUIT

317

7.. DATE OF LAST CIRCUIT TRIM (VM)

2015

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

1	Unknown Cause	17%
2	Other Animal	
3	Trees	17%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	
14	Bird	25%
15	Major Storm	8%
16	Line Down	
17	Transformer Fuse Blown	8%
18	Line Fuse	17%
19	Broke Pole	8%
20	Wind	
21	Load	
22	Planned	

### 

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3702:

1. SUBSTATION NAME AND NUMBER

### 37/WOODSTOCK

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 12472 HWY. 39, Somerset, KY 42501

3. CIRCUIT NAME AND NUMBER

OCALA RD. / #3702

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

### FEEDS SOUTH ON HWY 39

5. TOTAL CIRCUIT LENGTH (MILES)

45.64

6. CUSTOMER COUNT FOR THIS CIRCUIT

513

7.. DATE OF LAST CIRCUIT TRIM (VM)

2013

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

1	Unknown Cause	
2	Other Animal	
3	Trees	29%
4	Lightning	4%
5	Car Hit Pole	
6	SOURCE	4%
9	Defective Equipment	
10	Transformer	4%
11	Customer Wiring	
13	Squirrel	11%
14	Bird	7%
15	Major Storm	7%
16	Line Down	4%
17	Transformer Fuse Blown	18%
18	Line Fuse	14%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 120.10277 10. REPORTING YEAR (SAIDI) 116.28749 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.48622 12. REPORTING YEAR (SAIFI) 1.7192982

1./192982

13. CORRECTIVE ACTION PLAN

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3703:

1. SUBSTATION NAME AND NUMBER

### 37/WOODSTOCK

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 12472 HWY. 39, Somerset, KY 42501

3. CIRCUIT NAME AND NUMBER

CHARLES ELGIN / #3703

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

### FEEDS CHARLES ELGIN RD.

5. TOTAL CIRCUIT LENGTH (MILES)

12.31

6. CUSTOMER COUNT FOR THIS CIRCUIT

108

7.. DATE OF LAST CIRCUIT TRIM (VM)

2013

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

1	Unknown Cause	14%
2	Other Animal	
3	Trees	29%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	29%
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	
14	Bird	
15	Major Storm	14%
16	Line Down	
17	Transformer Fuse Blown	
18	Line Fuse	
19	Broke Pole	14%
20	Wind	
21	Load	
22	Planned	

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

52.6814

10. REPORTING YEAR (SAIDI)

176.89444

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.92811

12. REPORTING YEAR (SAIFI)

3.3055556

13. CORRECTIVE ACTION PLAN

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #3903:

1. SUBSTATION NAME AND NUMBER

### **39/JABEZ**

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 57 Red Oak Drive, Nancy, KY 42544

### 3. CIRCUIT NAME AND NUMBER

**CHEROKEE / #3903** 

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

### FEEDS TOWARD CHEROKEE

### 5. TOTAL CIRCUIT LENGTH (MILES)

35.04

6. CUSTOMER COUNT FOR THIS CIRCUIT

### 693

7.. DATE OF LAST CIRCUIT TRIM (VM)

2018

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

1	Unknown Cause	
2	Other Animal	
3	Trees	43%
4	Lightning	6%
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	
11	Customer Wiring	
13	Squirrel	9%
14	Bird	4%
15	Major Storm	11%
16	Line Down	
17	Transformer Fuse Blown	4%
18	Line Fuse	13%
19	Broke Pole	4%
20	Wind	
21	Load	
22	Planned	6%

# 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 460.10545 10. REPORTING YEAR (SAIDI) 769.33059 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 3.4437 12. REPORTING YEAR (SAIFI)

1.9408369

**13. CORRECTIVE ACTION PLAN** 

### (CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

### (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

### CIRCUIT #4005:

1. SUBSTATION NAME AND NUMBER

### 40/GREGORY ROAD

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

### 5540 HWY 776, Monticello, KY 42633

3. CIRCUIT NAME AND NUMBER

DELTA / #4005

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

### FEEDS TOWARD DELTA

5. TOTAL CIRCUIT LENGTH (MILES)

83.51

6. CUSTOMER COUNT FOR THIS CIRCUIT

477

7.. DATE OF LAST CIRCUIT TRIM (VM)

2012

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

1	Unknown Cause	
2	Other Animal	
3	Trees	38%
4	Lightning	
5	Car Hit Pole	
6	SOURCE	
9	Defective Equipment	
10	Transformer	3%
11	Customer Wiring	
13	Squirrel	6%
14	Bird	3%
15	Major Storm	19%
16	Line Down	9%
17	Transformer Fuse Blown	16%
18	Line Fuse	6%
19	Broke Pole	
20	Wind	
21	Load	
22	Planned	

# 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 303.11756 10. REPORTING YEAR (SAIDI)

368.87446

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.05108

### 12. REPORTING YEAR (SAIFI)

3.2704403

**13. CORRECTIVE ACTION PLAN** 



# South Kentucky RECC

# **Vegetation Management Plan (VMP)**

# **Updated April 2016**

## **Introduction**

South Kentucky RECC (SKRECC) is an Electric Distribution Cooperative serving approximately 69,000 accounts in parts of 13 counties in south central Kentucky and northern Tennessee. The service territory varies from flat cropland to steep, mountainous areas, and much of the terrain is covered with trees and other vegetation that requires maintenance in order to operate the 6,900 miles of distribution line owned by the cooperative.

The member density within the service territory also varies considerably from place to place. SKRECC serves many areas in which are sparsely populated; however, the cooperative also serves major subdivisions, industrial and commercial areas, and areas within the city limits of incorporated towns and cities. The cooperative also operates facilities in areas governed by entities such as the U.S. Forest Service and the U.S. Corps of Engineers, and SKRECC must work closely with these agencies in meeting their needs. The diversity of the terrain along with the diversity of the development and land use within the service territory requires the cooperative to use a variety of methods and practices to provide a right-ofway program that will meet the needs of the company and its members.

## **Goals of the SKRECC VMP**

The goal of the SKRECC VMP is to provide effective, reliable, and efficient vegetation management within our entire service area in such a way that we fulfill the vision and mission statements of the cooperative and meet the needs of all stakeholders who depend upon us.

# **<u>Right-of-Way Clearing Cycle and Methods to Determine Needs</u>**

SKRECC uses a 6 to 7 year cycle for trimming of right-of-ways and a 5 year cycle for spraying and bushhogging. However, many circuits on the system have special situations that require trimming more often. An example of this would be circuits feeding subdivisions where there are many rapid growing yard-trees. SKRECC must re-trim these areas on a more frequent basis. Special needs such as these are determined by methods such as the system inspection program, calls from members, and feedback from employees who work in the field on a daily basis and observe right-of-way conditions.

Similarly, there are sometimes instances in which the trimming cycle can be extended. This can be due to factors such as weather conditions which decrease vegetation growth, the effectiveness of herbicide treatment, and the type of land-use associated with the circuit. If the SKRECC Right-of-Way Manager determines that the cycle can be extended on a particular circuit and still provide reliable service the cooperative may do so.

# Methods of Maintaining and Clearing Right-of-Ways

SKRECC utilizes several methods of clearing and maintaining right-of ways. The specific methods used at any given location are dictated by the local parameters of each site.

Side-Trimming – As trees along right-of-ways grow and encroach toward the conductors, SKRECC uses bucket trucks to keep the growth trimmed back.

Topping – This method is primarily used where trees that cannot be removed under the lines encroach into the electrical space.

Spraying – Selective herbicide spraying is utilized on most areas of the system to keep down small brush and other vegetation that could hinder pulling up downed conductors or other maintenance activities.

Hand-clearing – This method is utilized primarily as an alternative to spraying in the US Forest Service territory and other environmentally sensitive sites where the terrain is so steep a tractor cannot be driven.

Bush-hogging – Bush-hogging is utilized primarily as an alternative to spraying in the US Forest Service territory and other environmentally sensitive sites where a tractor can be driven.

# **Clearing Widths**

It is the goal of SKRECC to clear a 45 foot corridor on multiphase primary lines, and a 30 foot corridor on single phase lines. In some instances there are right-of-ways that do not fully meet these standards, and when we do maintenance on these lines we trim back to the original cutting point.

The cooperative also inspects for dead or damaged trees (hazard trees) outside the cleared corridor which are tall enough to damage the line if they were to fall. SKRECC removes these trees whenever possible as part of the regular maintenance routine.

Yard trees and ornamental trees pose a different challenge because obtaining the above mentioned clearances would require the tree to be removed. Various different pruning techniques are used to obtain at least 8 feet of clearance below the system neutral on primary lines, and the maximum obtainable distance is achieved to the sides in these situations.

The cooperative desires to clear lines with secondary voltage (120/240 volt triplex lines, etc) to prevent rubbing by tree branches. In most cases a 3 to 5 foot clearance is judged to be satisfactory, but when allowable the cooperative may trim back even more. Secondary conductors are almost always located in close proximity to the dwellings we serve, and the distance trimmed may vary due to the specific situation and species of tree encountered.

# **Tree Replacement Program**

Many high growth trees in yards can be both a public hazard and a high cost to maintain due to constant re-trimming. It is the goal of SKRECC to remove these trees and replace them when appropriate with a small, low growing species if the landowner will permit it. The cooperative will provide and set a replacement tree for the landowner in these instances.

# **Reliability Criteria and Resources Used to Develop and Monitor the** <u>VMP</u>

The effectiveness of the VMP is evaluated on an ongoing basis by several different means. SKRECC has a right-of-way manager who oversees the plan and makes random visual inspections several times each week, and as circuits are cleared. The manager also has three supervisors who work full time in the field and report back to him with their observations. All clearing jobs that are completed are inspected before final payment is made to contractors.

The Kentucky Public Service Commission (PSC) does spot checks of rightof-way during the required field inspection process, and the Rural Utility Service (RUS) General Field Representative (GFR) does similar inspections for the O&M Survey associated with construction work plans.

SKRECC prepares monthly outage reports, and these reports are used to monitor the effectiveness of the VMP. The cooperative tracks SAIDI, CAIDI, and SAIFI and looks at trends while taking into account factors such as weather, major storms, and different causes of outages. This data is used to help determine both the effectiveness of the plan as a whole and any areas that may require additional attention.