

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

DUKE ENERGY KENTUCKY, INC.
RELIABILITY REPORT AND VEGETATION MANAGEMENT PLAN UPDATE FOR
CALENDAR YEAR 2022

May 1, 2023

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I. Introduction

On May 30, 2013, the Commission issued its Order requiring all jurisdictional utilities to file annual reliability reports and to develop vegetation management plans. Pursuant to the Order, jurisdictional utilities were required to report a 5 year average of reliability data. The reports are required to be based upon a calendar year (January to December) and filed by the first business day in May in the year immediately following the reporting year.

Duke Energy Kentucky, Inc. (Duke Energy Kentucky or the Company) submits its Reliability Report and Vegetation Management Plan update for Calendar year 2022 as required by the Commission's May 30, 2013 Order in Case No. 2011-00450.¹

II. Reliability Report Summary

Consistent with the most recent edition of the standard number 1366 "Guide for Electric Power Distribution Reliability Indices," and the Commission's Order,² the following is included in Exhibit A of Duke Energy Kentucky's Reliability Report Summary:

1. Calculate the System Average Interruption Duration Index (SAIDI) system-wide indices including Major Event Days (MEDs) and calculate the SAIDI system-wide indices excluding MEDs;
2. Calculate the System Average Interruption Frequency Index (SAIFI) system-wide indices including MEDs and calculate the SAIFI system-wide indices excluding MEDs;
3. Develop a system-wide rolling five-year average SAIDI excluding MEDs;
4. Develop a system-wide rolling five-year average SAIFI excluding MEDs;
5. Calculate SAIDI excluding MEDs for every circuit within its system;
6. Develop a rolling five-year average SAIDI for each circuit within its system;

¹ *In the matter of An Investigation of the Reliability Measures of Kentucky's Jurisdictional Electric Distribution Utilities, Case No. 2011-00450, Order (May 30, 2013).*

² Id.

7. Compare each circuit to that circuit's rolling five-year average SAIDI;
8. Calculate SAIFI excluding MEDs for every circuit within its system;
9. Develop a rolling five-year average SAIFI for each circuit within its system;
10. Compare each circuit to that circuit's rolling five-year average SAIFI.
11. File a Reliability Report by May 1 of each year, containing the reliability information as outlined in the attached Appendix for the preceding calendar year from January 1 to December 31 that includes the SAIDI and SAIFI system-wide indices, both including and excluding MEDs.
12. For each circuit with either SAIDI or SAIFI value higher than that circuit's respective SAIDI or SAIFI rolling five-year average, excluding MEDs, include in the annual Reliability Report the following information:
 - a. The circuit's SAIDI index for the year;
 - b. The circuit's SAIFI index for the year;
 - c. The circuit's rolling five-year average SAIDI;
 - d. The circuit's rolling five-year average SAIFI;
 - e. The substation name, number and location (i.e., County-Road-Town);
 - f. The circuit name, number and location (Town-Road-General Area);
 - g. The circuit's overall length in miles to the nearest tenth of a mile;
 - h. The number of customers served on the circuit for the year;
 - i. The date of the last circuit trim performed by the utility as part of its vegetation management plan;
 - j. A list of outage causes for the circuit, along with the percentage of total outage numbers represented by each cause;

- k. Circuit five-year average SAIDI;
- l. Reporting year SAIDI;
- m. Circuit five-year average SAIFI;
- n. Reporting year SAIFI;
- o. A Corrective Action Plan which describes any measures the utility has completed or plans to complete to improve the circuit's performance; and
- p. Any other information the utility believes will assist the Commission in understanding the circumstances surrounding the circuit's performance.

III. Vegetation Management Plan Update and Summary

Duke Energy Kentucky filed its initial Vegetation Management Plan with this Commission on December 18, 2007 in Case No. 2006-00494.³ Duke Energy's Midwest Vegetation Management Group is responsible for controlling vegetation growth for approximately 1,550 miles of transmission and distribution primary overhead electric lines in Kentucky.

Exhibit B is a current copy of Duke Energy Kentucky's Vegetation Management Plan that has been reformatted to align with other regulatory program findings.

As part of its 2023 plan, Duke Energy Kentucky plans to trim trees and maintain vegetation along 278 miles of its distribution system. The Company was able to get a good start on its Vegetation Plan for 2023. As of March 31, 2023 Duke Energy Kentucky has completed approximately 24% of its scheduled trimming, or approximately 66 miles of its distribution system. This leaves approximately 212 miles to be trimmed in 2023. The Company does not anticipate any difficulty in completing all planned trimming for 2023. The Company anticipates it will have sufficient crew coverage throughout the year.

³ Id.

Respectfully submitted,

DUKE ENERGY KENTUCKY, INC.

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KENTUCKY PUBLIC SERVICE COMMISSION

Electric Distribution Utility Annual Reliability Report

SECTION 1: CONTACT INFORMATION

UTILITY NAME	DUKE ENERGY KENTUCKY
REPORT PREPARED BY	MATTHEW G. DOYLE
E-MAIL ADDRESS OF PREPARER	Matthew.Doyle2@duke-energy.com
PHONE NUMBER OF PREPARER	513-335-5829

SECTION 2: REPORTING YEAR

CALENDAR YEAR OF REPORT	2022
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SECTION 3: MAJOR EVENT DAYS (MED)

T _{MED}	4.9232
FIRST DATE USED TO DETERMINE T _{MED}	January 1, 2017
LAST DATE USED TO DETERMINE T _{MED}	December 31, 2021
NUMBER OF MED IN REPORT YEAR	9

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

SECTION 4: SYSTEM RELIABILITY INFORMATION AND RESULTS

System-wide Information

TOTAL CUSTOMERS	147,010	TOTAL CIRCUITS	154
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Excluding MED

5 YEAR AVERAGE		REPORTING YEAR	
SAIDI	97.62	SAIDI	92.47
SAIFI	0.81	SAIFI	0.57

Including MED

5 YEAR AVERAGE		REPORTING YEAR	
SAIDI	175.18	SAIDI	302.69
SAIFI	1.00	SAIFI	1.09

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}

CONFIDENTIAL PROPRIETARY TRADE SECRET

CIRCUIT NUMBER	SUBSTATION NAME	SUBSTATION NUMBER	SUBSTATION COUNTY	SUBSTATION ROAD	SUBSTATION TOWN	CIRCUIT NAME	CIRCUIT ID	CIRCUIT NUMBER	CIRCUIT TOWN
H9323060041	AERO	306	BOONE		FLORENCE	AERO 41	H9323060041	41	OAKBROOK
H9321700041	ATLAS	170	KENTON		ERLANGER	ATLAS 41	H9321700041	41	CRESCENT SPRINGS
H9320860041	BEAVER	86	BOONE		WALTON	BEAVER 41	H9320860041	41	WALTON
H9321310044	BELLEVUE	131	CAMPBELL		NEWPORT	BELLEVUE 44	H9321310044	44	BELLEVUE
H9320670043	BUFFINGTON	67	KENTON		FLORENCE	BUFFINGTON 43	H9320670043	43	FLORENCE
H9320670045	BUFFINGTON	67	KENTON		FLORENCE	BUFFINGTON 45	H9320670045	45	INDEPENDENCE
H9320670047	BUFFINGTON	67	KENTON		FLORENCE	BUFFINGTON 47	H9320670047	47	FLORENCE
H9321470043	CLARYVILLE	147	CAMPBELL		CLARYVILLE	CLARYVILLE 43	H9321470043	43	CLARYVILLE
H9320420041	CONSTANCE	42	BOONE		ERLANGER	CONSTANCE 41	H9320420041	41	TAYLORSPOINT
H9320420044	CONSTANCE	42	BOONE		ERLANGER	CONSTANCE 44	H9320420044	44	ERLANGER
H9322170042	COVINGTON KY	217	KENTON		COVINGTON	COVINGTON 42	H9322170042	42	COVINGTON
H9320700041	CRESCENT	70	KENTON		FT. MITCHELL	CRESCENT 41	H9320700041	41	CRESCENT SPRINGS
H9320700043	CRESCENT	70	KENTON		FT. MITCHELL	CRESCENT 43	H9320700043	43	FT. MITCHELL
H9320700045	CRESCENT	70	KENTON		FT. MITCHELL	CRESCENT 45	H9320700045	45	FT. MITCHELL
H9320700046	CRESCENT	70	KENTON		FT. MITCHELL	CRESCENT 46	H9320700046	46	FT. MITCHELL
H9322990041	DECOURSEY	299	KENTON		TAYLOR MILL	DECORSEY 41	H9322990041	41	TAYLOR MILL
H9320890041	DIXIE	89	BOONE		FLORENCE	DIXIE 41	H9320890041	41	FLORENCE
H9320890042	DIXIE	89	BOONE		FLORENCE	DIXIE 42	H9320890042	42	FLORENCE
H9320890045	DIXIE	89	BOONE		FLORENCE	DIXIE 45	H9320890045	45	FLORENCE
H9320890046	DIXIE	89	BOONE		FLORENCE	DIXIE 46	H9320890046	46	FLORENCE
H9320550041	DONALDSON	55	KENTON		ERLANGER	DONALDSON 41	H9320550041	41	ERLANGER
H9320550043	DONALDSON	55	KENTON		ERLANGER	DONALDSON 43	H9320550043	43	ERLANGER
H9320550048	DONALDSON	55	KENTON		ERLANGER	DONALDSON 48	H9320550048	48	ERLANGER
H9320550046	DONALDSON	55	KENTON		ERLANGER	DONALDSON 46	H9320550046	46	ERLANGER
H9320550045	DONALDSON	55	KENTON		ERLANGER	DONALDSON 45	H9320550045	45	ERLANGER
H9320550047	DONALDSON	55	KENTON		ERLANGER	DONALDSON 47	H9320550047	47	ERLANGER
H9321090043	DRY RIDGE	109	GRANT		DRY RIDGE	DRY RIDGE 43	H9321090043	43	DRY RIDGE
H9322890041	EMPIRE	289	BOONE		FLORENCE	EMPIRE 41	H9322890041	41	FLORENCE
H9322410041	FLORENCE	241	BOONE		FLORENCE	FLORENCE 41	H9322410041	41	FLORENCE
H9322410044	FLORENCE	241	BOONE		FLORENCE	FLORENCE 44	H9322410044	44	FLORENCE
H9322410046	FLORENCE	241	BOONE		FLORENCE	FLORENCE 46	H9322410046	46	FLORENCE
H9322410047	FLORENCE	241	BOONE		FLORENCE	FLORENCE 47	H9322410047	47	FLORENCE
H9321280044	HANDS	128	KENTON		COVINGTON	HANDS 44	H9321280044	44	ERLANGER
H9321280045	HANDS	128	KENTON		COVINGTON	HANDS 45	H9321280045	45	TAYLOR MILL
H9321520042	HEBRON	152	BOONE		HEBRON	HEBRON 42	H9321520042	42	PETERSBURG
H9321520044	HEBRON	152	BOONE		HEBRON	HEBRON 44	H9321520044	44	HEBRON
H9320090041	KENTON	9	KENTON		LAKEVIEW	KENTON 41	H9320090041	41	FT. WRIGHT
H9320090044	KENTON	9	KENTON		LAKEVIEW	KENTON 44	H9320090044	44	FT. WRIGHT
H9320090046	KENTON	9	KENTON		LAKEVIEW	KENTON 46	H9320090046	46	LAKEVIEW
H9321890043	LIMABURG	189	BOONE		LIMABURG	LIMABURG 43	H9321890043	43	HEBRON
H9320980041	LONGBRANCH	98	BOONE		FLORENCE	LONGBRANCH 41	H9320980041	41	FLORENCE
H9320980042	LONGBRANCH	98	BOONE		FLORENCE	LONGBRANCH 42	H9320980042	42	US 42
H9320980044	LONGBRANCH	98	BOONE		FLORENCE	LONGBRANCH 44	H9320980044	44	UNION
H9323050042	MT ZION	305	BOONE		FLORENCE	MT ZION 42	H9323050042	42	FLORENCE
H9323050043	MT ZION	305	BOONE		FLORENCE	MT ZION 43	H9323050043	43	FLORENCE
H9323050044	MT ZION	305	BOONE		FLORENCE	MT ZION 44	H9323050044	44	FLORENCE
H9322100042	OAKBROOK	210	BOONE		FLORENCE	OAKBROOK 42	H9322100042	42	FLORENCE
H9321990041	RICHWOOD	199	BOONE		RICHWOOD	RICHWOOD 41	H9321990041	41	RICHWOOD
H9321990042	RICHWOOD	199	BOONE		RICHWOOD	RICHWOOD 42	H9321990042	42	RICHWOOD
H9320620042	SILVER GROVE	62	CAMPBELL		MELBOURNE	SILVER GROVE 42	H9320620042	42	SILVER GROVE
H9320620043	SILVER GROVE	62	CAMPBELL		MELBOURNE	SILVER GROVE 43	H9320620043	43	MELBOURNE
H9321250042	VERONA	125	KENTON		CRITTENDEN	VERONA 42	H9321250042	42	CRITTENDEN
H9321250043	VERONA	125	KENTON		CRITTENDEN	VERONA 43	H9321250043	43	WALTON
H9322430042	VILLA	243	KENTON		EDGEWOOD	VILLA 42	H9322430042	42	CRESTVIEW HILLS
H40C0150041	WEST END	15	HAMILTON		CINCINNATI	WEST END 41	H40C0150041	41	PARK HILLS
H9320590044	WILDER	59	KENTON		WILDER	WILDER 44	H9320590044	44	WILDER
H9320590045	WILDER	59	KENTON		WILDER	WILDER 45	H9320590045	45	WILDER
H9320590046	WILDER	59	KENTON		WILDER	WILDER 46	H9320590046	46	FT. THOMAS
H9320590047	WILDER	59	KENTON		WILDER	WILDER 47	H9320590047	47	NEWPORT

CONFIDENTIAL PROPRIETARY TRADE SECRET

CIRCUIT ROAD	CIRCUIT GENERAL AREA	TOTAL CIRCUIT LENGTH (miles)	CUSTOMER COUNT FOR THIS CIRCUIT	DATE OF LAST CIRCUIT TRIM (VEGETATION MANAGEMENT)	CIRCUIT 5-YEAR AVERAGE (SAIDI)	REPORTING YEAR (2022) SAIDI	DID SAIDI INCREASE IN 2022?	CIRCUIT 5-YEAR AVERAGE (SAIFI)	REPORTING YEAR (2022) SAIFI	DID SAIFI INCREASE IN 2022?
	Oakbrook	1.773	3	New Circuit in 2022	0.000	124.020	YES	0.000	0.667	YES
	Crescent Springs, Erlanger	4.225	278	10/6/2021	298.717	221.541	NO	1.191	2.194	YES
	Walton	50.912	1,351	8/17/2022	232.858	502.999	YES	1.507	2.539	YES
	Bellevue	8.074	1,397	3/19/2020	102.247	89.548	NO	0.732	1.050	YES
	Florence	2.297	15	8/31/2019	5.843	99.015	YES	0.030	0.400	YES
	Florence	16.08	2,069	6/6/2020	92.107	182.375	YES	0.620	1.188	YES
	Florence	14.972	1,787	4/4/2020	90.080	114.921	YES	1.161	0.737	NO
	Claryville	1.318	9	11/23/2021	58.253	169.756	YES	0.282	1.111	YES
	Taylorsport	12.661	129	5/22/2021	155.332	334.454	YES	0.918	3.116	YES
	Erlanger	11.047	296	7/2/2021	33.036	62.103	YES	0.319	0.281	NO
	Covington	3.707	1,307	5/26/2018	40.450	70.374	YES	0.594	1.055	YES
	Crescent Springs	10.46	1,608	12/27/2018	169.974	163.678	NO	0.958	1.086	YES
	Ft. Mitchell	18.157	1,708	11/6/2019	162.756	154.801	NO	0.635	1.150	YES
	Ft. Mitchell	21.678	1,927	1/12/2019	54.068	110.204	YES	0.282	1.125	YES
	Ft. Mitchell	19.205	1,082	New Circuit in 2021	0.000	181.091	YES	0.000	0.932	YES
	Taylor Mill	35.454	2,049	12/27/2018	127.442	292.383	YES	1.207	1.682	YES
	Florence	5.784	613	6/12/2021	33.588	23.435	NO	0.136	0.164	YES
	Florence	4.901	41	4/24/2021	155.524	303.505	YES	0.697	0.634	NO
	Florence	3.418	39	5/1/2021	0.000	378.109	YES	0.000	0.821	YES
	Florence	2.349	10	4/17/2021	19.442	37.122	YES	0.044	0.333	YES
	Erlanger and Florence	12.737	1,698	5/20/2020	97.471	196.299	YES	0.803	0.427	NO
	Erlanger, Florence, CVG	13.727	701	11/19/2020	232.214	741.188	YES	2.243	2.621	YES
	Erlanger	7.861	597	5/22/2021	11.718	30.032	YES	0.243	0.449	YES
	Erlanger	16.505	2,036	New Circuit in 2019	25.161	102.765	YES	0.272	1.180	YES
	Erlanger, Florence, CVG	6.076	49	12/29/2022	0.000	235.829	YES	0.000	1.293	YES
	Erlanger, Florence, CVG	5.503	39	New Circuit in 2020	6.893	20.184	YES	0.032	0.070	YES
	Dry Ridge	7.451	544	New Circuit in 2021	0.000	10.547	YES	0.000	0.072	YES
	Florence, Union	29.012	1,949	1/26/2019	84.235	89.282	YES	0.790	0.984	YES
	Florence Mall	1.959	7	Nothing to trim	33.511	35.231	YES	0.233	0.143	NO
	Florence	17.561	1,138	4/18/2020	14.345	195.391	YES	0.124	1.947	YES
	Florence	15.382	1,065	6/5/2021	64.070	20.365	NO	0.458	0.654	YES
	Florence	7.063	202	4/17/2021	9.900	12.966	YES	0.249	0.045	NO
	Erlanger	20.869	1,244	10/26/2020	80.892	104.196	YES	1.019	0.114	NO
	Taylor Mill	18.151	877	2/23/2019	59.540	355.378	YES	0.621	1.420	YES
	Petersburg	47.975	668	9/23/2019	65.247	164.086	YES	0.624	1.377	YES
	Park West International	3.751	23	Nothing to trim	77.143	902.500	YES	0.359	1.619	YES
	Ft. Wright, Ft. Mitchell	19.581	1,528	7/21/2019	94.975	156.836	YES	0.896	1.128	YES
	Ft. Wright, Ft. Mitchell	22.298	2,362	7/7/2018	118.803	159.679	YES	1.238	0.395	NO
	Edgewood and Fort Wright	14.886	674	12/29/2022	76.985	94.935	YES	0.683	1.087	YES
	CVG (Airport)	4.326	2	2/23/2019	37.000	58.300	YES	0.400	0.500	YES
	Florence	19.331	2,282	8/28/2021	7.742	102.470	YES	0.041	2.009	YES
	Union, Beaverlick and Florence	19.345	1,344	12/29/2022	59.323	348.880	YES	0.367	1.899	YES
	Union and Beaverlick	0	1,012	New Circuit in 2022	0.000	338.231	YES	0.000	1.128	YES
	Florence	1.584	12	9/16/2021	31.171	47.503	YES	0.261	0.167	NO
	Florence	10.653	861	12/4/2018	234.307	290.827	YES	1.726	1.101	NO
	Florence	3.538	57	New Circuit in 2019	0.285	17.946	YES	0.003	0.035	YES
	Limaburg, Oakbrook and Burlington	28.954	2,816	4/18/2019	106.080	216.413	YES	0.659	0.670	YES
	Richwood	11.51	124	10/1/2018	224.269	377.121	YES	1.028	1.815	YES
	Richwood	33.017	2,177	10/13/2018	61.071	153.941	YES	0.997	0.874	NO
	Silver Grove	8.71	441	5/14/2019	245.382	689.179	YES	0.998	2.055	YES
	Melbourne	19.896	580	7/25/2019	183.940	157.418	NO	1.309	1.449	YES
	Walton	30.043	523	12/29/2022	202.972	513.010	YES	1.004	2.869	YES
	Crittenden, Walton	22.442	808	12/29/2022	39.108	13.661	NO	0.338	1.038	YES
	Crestview Hills	12.875	892	11/11/2019	67.686	72.747	YES	0.416	0.168	NO
	Covington, Park Hills	10.55	778	7/6/2022	325.888	348.043	YES	1.334	2.490	YES
	Wilder & Covington	19.886	1,226	12/29/2022	140.067	234.100	YES	0.956	0.632	NO
	Wilder, Southgate, Ft. Thomas	13.646	1,613	12/29/2022	104.461	91.476	NO	0.637	0.755	YES
	Ft. Thomas	15.964	1,106	12/29/2022	163.670	243.232	YES	1.215	2.058	YES
	Southgate	13.601	1,839	10/18/2022	56.263	83.399	YES	0.458	0.431	NO

Duke Energy Kentucky
Reliability Report and Vegetation Management
For Calendar Year 2022

CONFIDENTIAL PROPRIETARY TRADE SECRET

SUBSTATION - CIRCUIT	CIRCUIT NAME	CIRCUIT ID	OUTAGE CAUSE	PERCENT OF TOTAL OUTAGE MINUTES	CORRECTIVE ACTION PLAN
AERO - H9320860041	AERO	H9320860041	20 Equipment failure	100.00%	All of the Equipment Failure outage minutes are due to one event in which all three fuses failed on pole 218N-252. The fuses were replaced at the time of the event. No further action is required.
				100%	
ATLAS - H9321700041	ATLAS	H9321700041	28 Other Cause	42.86%	All of the Other Cause outage minutes were due to one event when the circuit breaker was delayed when closing in to pick up the circuit from an alternate source. All of the Unknown Cause outage minutes resulted from one event when the fuse opened. All of the Vegetation outage minutes were from one event due to a tree limb on the line. All equipment was repaired and/or replaced at the time of the restorations. No further action is required. This circuit was last trimmed in 2021.
			11 Unknown Cause	30.11%	
			03 Vegetation	26.96%	
			EA Weather	0.07%	
				100%	
BEAVER - H9320860041	BEAVER	H9320860041	03 Vegetation	89.09%	The majority of the Vegetation outage minutes were from one event when a large oak tree limb, with internal stem decay, fell across all 3 phases at pole 508N-470 causing the circuit to lockout. All damaged equipment was replaced at the time of restoration. No further action is required. This circuit was last trimmed in 2022.
			09 Public Accident/Damage	2.65%	
			19 Lightning strike	2.58%	
			20 Equipment failure	2.11%	
			28 Other Cause	1.35%	
			05 Planned (IEEE)	1.21%	
			11 Unknown Cause	0.82%	
			04 Wildlife	0.11%	
			EA Weather	0.07%	
				100%	
BELLEVUE - H9321310044	BELLEVUE	H9321310044	03 Vegetation	94.14%	All of the Vegetation outage minutes were from two events that occurred on the same day due to a dead ash tree branch that fell across all three phases, at pole CA6-1601, causing the circuit breaker to lockout. All damaged equipment was replaced at the time of restoration and any remaining hazard tree limbs were removed following the event. No further action is required. This circuit was last trimmed in 2020.
			EA Weather	2.57%	
			28 Other Cause	1.50%	
			05 Planned (IEEE)	0.85%	
			09 Public Accident/Damage	0.49%	
			04 Wildlife	0.21%	
			20 Equipment failure	0.14%	
			19 Lightning strike	0.11%	
				100%	
BUFFINGTON - H9320670043	BUFFINGTON	H9320670043	05 Planned (IEEE)	72.03%	All of the Planned outage minutes were from one event to replace a transformer. All of the Weather outage minutes occurred due to an unknown fault on an underground transformer. The equipment was investigated and no issues were found. No further action is required.
			EA Weather	27.97%	
				100%	
BUFFINGTON - H9320670045	BUFFINGTON	H9320670045	03 Vegetation	75.24%	The majority of the Vegetation and Weather outage minutes were from multiple events that occurred on 6/8 and 6/9. The majority of these events involved trees on the lines. All damaged equipment was replaced at the time of restoration. No further action is required. This circuit was trimmed in 2020.
			EA Weather	14.22%	
			20 Equipment failure	6.75%	
			05 Planned (IEEE)	2.79%	
			04 Wildlife	0.94%	
			19 Lightning strike	0.06%	
				100%	
BUFFINGTON - H9320670047	BUFFINGTON	H9320670047	20 Equipment failure	63.38%	The majority of the Equipment Failure minutes were from one event caused by a failed copper hand tie located on the top insulator of pole K116-101. The Vegetation outage minutes were from multiple events that occurred due to trees on the lines. All of the damaged equipment was repaired or replaced at the time of the restoration. No further action is required. This circuit was trimmed in 2020.
			03 Vegetation	19.98%	
			09 Public Accident/Damage	5.80%	
			28 Other Cause	5.30%	
			05 Planned (IEEE)	4.06%	
			04 Wildlife	0.94%	
			EA Weather	0.35%	
			11 Unknown Cause	0.19%	
			09 Public Accident/Damage	0.02%	
				100%	
CLARYVILLE - H9321470043	CLARYVILLE	H9321470043	EA Weather	100.00%	All of the Weather outage minutes were from one event that occurred when a circuit breaker locked out due to an unknown fault. The equipment was investigated and no issues were found. No further action is required.
				100%	
CONSTANCE - H9320420041	CONSTANCE	H9320420041	09 Public Accident/Damage	91.17%	All of the Public Accident/Damage outage minutes were from one event that required the replacement of pole 98N-141. All damaged equipment was replaced at the time of restoration. No further action is required.
			11 Unknown Cause	8.00%	
			20 Equipment failure	0.83%	
				100%	
CONSTANCE - H9320420044	CONSTANCE	H9320420044	03 Vegetation	87.69%	All of the Vegetation outage minutes were from one event that occurred due to the neutral wire being knocked down by a tree, at pole 218N-498. All damaged equipment was replaced at the time of restoration and any remaining hazard tree limbs were removed following the event. The Planned outage minutes were from one event that occurred to change out a pad mount transformer from a live front to a dead front design. No further action is required. This circuit was last trimmed in 2021.
			05 Planned (IEEE)	10.91%	
			04 Wildlife	1.40%	
				100%	
COVINGTON - H9322170042	COVINGTON	H9322170042	09 Public Accident/Damage	66.81%	The majority of the Public Accident/Damage outage minutes were from one event when a vehicle hit and broke pole K51-1247. All of the Planned outage minutes were due to scheduled conductor, pole & other equipment changeouts. All equipment has been replaced. No further action is required.
			05 Planned (IEEE)	23.96%	
			20 Equipment failure	5.88%	
			04 Wildlife	3.26%	
			28 Other Cause	0.09%	
				100%	
CRESCENT - H9320700041	CRESCENT	H9320700041	03 Vegetation	50.46%	All of the Vegetation outage minutes were from multiple events throughout the year. The majority of the Weather outage minutes were from one event that caused a recloser to lock out. The majority of the Equipment Failure outage minutes were from one event due to a bad underground cable. All damaged equipment was replaced at the time of restoration. No further action is required. This circuit is scheduled to be trimmed in 2023.
			EA Weather	22.99%	
			20 Equipment failure	18.44%	
			04 Wildlife	7.30%	
			28 Other Cause	0.81%	
				100%	
CRESCENT - H9320700043	CRESCENT	H9320700043	03 Vegetation	42.46%	The majority of the Vegetation outage minutes were from one event when a large maple tree uprooted and fell across all three phases, breaking one conductor and locking out a sectionalizer. All of the Public Accident/Damage outage minutes were from one event due to a vehicle hitting pole K73-466 causing the cross arm to break. All damaged equipment was replaced at the time of restoration. No further action is required. This circuit was last trimmed in 2019.
			09 Public Accident/Damage	31.41%	
			20 Equipment failure	9.14%	
			04 Wildlife	6.22%	
			EA Weather	4.98%	
			28 Other Cause	4.08%	
			05 Planned (IEEE)	1.62%	
			19 Lightning strike	0.06%	
			11 Unknown Cause	0.02%	
				100%	
CRESCENT - H9320700045	CRESCENT	H9320700045	20 Equipment failure	84.10%	The majority of the Equipment Failure outage minutes were from one event when a recloser failed due to a battery issue. All of the Unknown Cause outage minutes were from one event due to a bad cable that was identified with a cable tester. All damaged equipment was replaced at the time of restoration. No further action is required.
			11 Unknown Cause	10.78%	
			03 Vegetation	3.00%	
			09 Public Accident/Damage	1.44%	
			04 Wildlife	0.69%	
				100%	
CRESCENT - H9320700046	CRESCENT	H9320700046	03 Vegetation	53.87%	The majority of the Vegetation outage minutes occurred during high winds on 6/8 and 6/9. All of the Other Cause outage minutes were from one event that resulted in a recloser locking out. The majority of the Equipment Failure outage minutes were from one event that occurred due to a defective elbow in pad mount transformer K82-23. All damaged equipment was replaced at the time of restoration. No further action is required.
			28 Other Cause	24.42%	
			20 Equipment failure	20.63%	
			05 Planned (IEEE)	0.83%	
			09 Public Accident/Damage	0.19%	
			11 Unknown Cause	0.06%	
				100%	

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DECORSEY - H9322990041	DECORSEY	H9322990041	20 Equipment failure	55.85%	The majority of the Equipment Failure outage minutes were from one event that occurred due to a circuit breaker at the Wilder substation tripping offline due to a low SF6 gas reading. All of the Public Accident/Damage outage minutes were from one event due to a vehicle hitting the guy wire on pole 11K-1229 that resulted in the phases slapping together and locking out two of the phases. All damaged equipment was replaced at the time of restoration. No further action is required.
			09 Public Accident/Damage	36.28%	
			11 Unknown Cause	2.75%	
			03 Vegetation	2.41%	
			04 Wildlife	1.71%	
				100%	
DIXIE - H9320890041	DIXIE	H9320890041	09 Public Accident/Damage	84.20%	The majority of the Public Accident/Damage outage minutes were from one event that occurred due to a dig-in that required a cable to be replaced. All damaged equipment was replaced at the time of restoration. No further action is required.
			04 Wildlife	8.66%	
			20 Equipment failure	4.83%	
			05 Planned (IEEE)	1.43%	
			28 Other Cause	0.89%	
				100%	
DIXIE - H9320890042	DIXIE	H9320890042	EA Weather	79.65%	All of the Weather outage minutes were from one event that occurred due to a tree on the line. The Planned outage minutes were from two events scheduled to replace transformers that had reached the end of life. All damaged equipment was replaced at the time of restoration. No further action is required.
			05 Planned (IEEE)	14.62%	
			09 Public Accident/Damage	4.02%	
			11 Unknown Cause	1.72%	
				100%	
DIXIE - H9320890045	DIXIE	H9320890045	28 Other Cause	80.85%	All of the Other Cause outage minutes were from one event with an unknown fault that caused a sectionalizer to lock out. All of the Equipment Failure outage minutes were from one event that occurred due to a cable down at pole 13K-157. All damaged equipment was replaced at the time of restoration. No further action is required.
			20 Equipment failure	15.60%	
			05 Planned (IEEE)	2.10%	
			04 Wildlife	1.46%	
				100%	
DIXIE - H9320890046	DIXIE	H9320890046	05 Planned (IEEE)	87.01%	All of the Planned outage minutes were from one event scheduled to replace a cross arm on pole 318N-717. All of the Other Cause outage minutes were from one event when a recloser box was opened and operated by an unknown person. No further action is required.
			28 Other Cause	12.99%	
				100%	
DONALDSON - H9320550041	DONALDSON	H9320550041	20 Equipment failure	97.37%	The majority of the Equipment Failure outage minutes were from two events that resulted from bad underground cables. All damaged equipment was replaced at the time of restoration. No further action is required.
			05 Planned (IEEE)	1.82%	
			04 Wildlife	0.80%	
			28 Other Cause	0.02%	
				100%	
DONALDSON - H9320550043	DONALDSON	H9320550043	09 Public Accident/Damage	80.46%	All of the Public Accident/Damage outage minutes were from multiple events due to public vehicles hitting poles. All of the Vegetation outage minutes were from one event that occurred due to a tree limb on the primary cable at pole 218N-533. All damaged equipment was replaced at the time of restoration. No further action is required. This circuit was last trimmed in 2020.
			03 Vegetation	19.40%	
			20 Equipment failure	0.11%	
			28 Other Cause	0.01%	
			04 Wildlife	0.01%	
				100%	
DONALDSON - H9320550045	DONALDSON	H9320550045	09 Public Accident/Damage	52.20%	All of the Public Accident/Damage outage minutes were from one event that resulted in a blown fuse. All of the Wildlife outage minutes were from one event that resulted in a blown fuse. All fuses were replaced at the time of restoration. No further action is required.
			04 Wildlife	47.80%	
				100%	
DONALDSON - H9320550046	DONALDSON	H9320550046	09 Public Accident/Damage	91.26%	The majority of the Public Accident/Damage outage minutes were from one event due to a vehicle hitting and breaking pole K105-116 that caused the phases to slap together and the circuit breaker to lock out. All damaged equipment was replaced at the time of restoration. No further action is required.
			28 Other Cause	4.07%	
			04 Wildlife	3.39%	
			05 Planned (IEEE)	0.94%	
			20 Equipment failure	0.31%	
			03 Vegetation	0.02%	
				100%	
DONALDSON - H9320550047	DONALDSON	H9320550047	05 Planned (IEEE)	56.40%	All of the Planned outage minutes were from one event scheduled to replace four underground transformers. All of the Equipment Failure outage minutes were from one event due to defective potheads at pole BNK-6447. All damaged equipment was replaced at the time of restoration. No further action is required.
			20 Equipment failure	43.60%	
				100%	
DONALDSON - H9320550048	DONALDSON	H9320550048	03 Vegetation	53.04%	The majority of the Vegetation outage minutes were from one event due to a down wire. All of the Planned outage minutes were from two events. One event was a live front pad mount change out and the other event was for a load swap. The majority of the Wildlife outage minutes were from one event that resulted in fuse replacement. All damaged equipment was replaced at the time of restoration. No further action is required. This circuit was last trimmed in 2021.
			05 Planned (IEEE)	35.11%	
			04 Wildlife	10.36%	
			20 Equipment failure	1.49%	
				100%	
DRY RIDGE - H9321090043	DRY RIDGE	H9321090043	20 Equipment failure	100.00%	All of the Equipment Failure outage minutes were from two events. One of the events was due to a failed jumper and the other event was due to defective overhead transformer. All damaged equipment was replaced at the time of restoration. No further action is required.
				100%	
				100%	
EMPIRE - H9322890041	EMPIRE	H9322890041	03 Vegetation	52.41%	The majority of the Vegetation outage minutes were from one event due to a live tree limb contacting and breaking a downstream conductor on an unfused tap at pole 368N-390. All of the Other Cause outage minutes were from two events resulting in the same phase A recloser locking out. All of the Unknown Cause outage minutes were from one event due to a phase A recloser locking out. All damaged equipment was replaced, a new cut out was installed, and the phase A recloser is under further investigation as it is a repeat offender. This circuit is scheduled to be trimmed in 2023.
			28 Other Cause	25.68%	
			11 Unknown Cause	13.52%	
			20 Equipment failure	7.10%	
			05 Planned (IEEE)	0.89%	
			19 Lightning strike	0.22%	
			09 Public Accident/Damage	0.11%	
			04 Wildlife	0.07%	
				100%	
FLORENCE - H9322410041	FLORENCE	H9322410041	20 Equipment failure	100.00%	All of the Equipment Failure outage minutes were from one event due to a bad switching module. All damaged equipment was replaced at the time of restoration. No further action is required.
				100%	
				100%	
FLORENCE - H9322410044	FLORENCE	H9322410044	20 Equipment failure	53.41%	The majority of the Equipment Failure outage minutes were from one event due to a burnt bolted wedge connector on phase B at pole 268N-1223. The majority of the Public Accident/Damage outage minutes were from one event that resulted in a B phase to ground fault that caused a circuit breaker to lock out. All of the Vegetation outage minutes were from one event that resulted in a B phase fault that caused a recloser to lock out. All damaged equipment was replaced at the time of restoration. No further action is required. This circuit was last trimmed in 2020.
			09 Public Accident/Damage	20.06%	
			03 Vegetation	14.60%	
			EA Weather	7.35%	
			04 Wildlife	2.16%	
			05 Planned (IEEE)	1.41%	
			11 Unknown Cause	1.00%	
				100%	
FLORENCE - H9322410046	FLORENCE	H9322410046	11 Unknown Cause	33.86%	The majority of the Unknown Cause outage minutes were from one event that resulted in a recloser locking out at pole 318N-1347 while a hotline tag was being placed to allow another pole to be replaced. All of the Weather outage minutes were from one event that resulted in a blown fuse. The majority of the Equipment Failure outage minutes were from one event due to a broken transformer cutout. All of the Planned outage minutes were from multiple events scheduled to replace live front pad mount transformers as well as transformers that had reached end of life. All damaged equipment was replaced at the time of restoration. No further action is required.
			EA Weather	25.94%	
			20 Equipment failure	16.95%	
			05 Planned (IEEE)	15.27%	
			04 Wildlife	5.76%	
			28 Other Cause	1.55%	
			19 Lightning strike	0.66%	
				100%	
FLORENCE - H9322410047	FLORENCE	H9322410047	20 Equipment failure	100.00%	All of the Equipment Failure outage minutes were from two events. One event was due to a bad overhead transformer and the other event was due to a couple of defective potheads. All damaged equipment was replaced at the time of restoration. No further action is required.
				100%	

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HANDS - H9321280044	HANDS	H9321280044	03 Vegetation	98.96%	The majority of the Vegetation outage minutes were from one event due to a tree knocking down pole K97-148 on a rear property location. All damaged equipment was replaced at the time of restoration. No further action is required. This circuit was last trimmed in 2020.
			05 Planned (IEEE)	0.61%	
			20 Equipment Failure	0.31%	
			04 Wildlife	0.12%	
				100%	
HANDS - H9321280045	HANDS	H9321280045	03 Vegetation	92.52%	The majority of the Vegetation outage minutes were from one event due to an uprooted large locust tree fall across all phases in between poles KNK-2804 and 10K-204. There was no damage to the conductor or equipment and the tree was removed. No further action is required. This circuit is scheduled to be trimmed in 2023.
			20 Equipment Failure	4.38%	
			28 Other Cause	2.90%	
			05 Planned (IEEE)	0.21%	
				100%	
HEBRON - H9321520042	HEBRON	H9321520042	EA Weather	48.78%	All of the Weather outage minutes were from one event that resulted in a recloser locking out. The majority of the Public Accident/Damage outage minutes were from one event when a vehicle hit and broke the neutral guy wire on pole 78N-62 causing the circuit breaker to lock out. All damaged equipment was replaced at the time of restoration. No further action is required.
			09 Public Accident/Damage	44.42%	
			20 Equipment Failure	4.85%	
			05 Planned (IEEE)	0.74%	
			19 Lightning Strike	0.48%	
			04 Wildlife	0.40%	
			11 Unknown Cause	0.19%	
03 Vegetation	0.13%				
				100%	
HEBRON - H9321520044	HEBRON	H9321520044	20 Equipment Failure	99.54%	The majority of the Equipment Failure outage minutes were from one event due to a large oil leak on pad mount transformer 78N-290 that resulted in a blown fuse. All damaged equipment was repaired at the time of restoration. No further action is required.
			19 Lightning Strike	0.34%	
			11 Unknown Cause	0.12%	
				100%	
KENTON - H9320090041	KENTON	H9320090041	03 Vegetation	51.91%	The majority of the Vegetation outage minutes were from one event due to a tree on the line at pole K84-199. There was no damage to the conductor or equipment and the tree was removed. The majority of the Public Accident/Damage outage minutes were from one event due to a vehicle hitting pole KNK-5327. All damaged equipment was replaced at the time of restoration. No further action is required. This circuit is scheduled to be trimmed in 2023.
			09 Public Accident/Damage	43.12%	
			05 Planned (IEEE)	2.15%	
			20 Equipment Failure	1.50%	
			28 Other Cause	0.22%	
			19 Lightning Strike	0.05%	
			11 Unknown Cause	0.04%	
				100%	
KENTON - H9320090044	KENTON	H9320090044	03 Vegetation	83.26%	The majority of the Vegetation outage minutes were from one event due to trees on the lines at poles K63-28 and K63-595. The majority of the Equipment Failure outage minutes were from two events. One event was due to a faulty trip saver and the other event was due to a failed cross arm at pole K74-214. All damaged equipment was repaired or replaced at the time of restoration. No further action is required. This circuit is scheduled to be trimmed in 2023.
			20 Equipment Failure	12.30%	
			04 Wildlife	1.94%	
			28 Other Cause	1.29%	
			05 Planned (IEEE)	1.04%	
				100%	
KENTON - H9320090046	KENTON	H9320090046	03 Vegetation	94.22%	The majority of the Vegetation outage minutes were from one event due to an oak tree falling across all three phases causing pole K75-205 and multiple cross arms to break. All damaged equipment was repaired or replaced at the time of restoration. No further action is required. This circuit was last trimmed in 2022.
			20 Equipment Failure	5.78%	
				100%	
LIMBURG - H9321890043	LIMBURG	H9321890043	11 Unknown Cause	100.00%	All of the Unknown Cause outage minutes were from one event that resulted in a blown fuse. The fuse was replaced at the time of restoration. No further action is required.
				100%	
LONGBRANCH - H9320980041	LONGBRANCH	H9320980041	20 Equipment Failure	50.78%	The majority of the Equipment Failure outage minutes were from one event due to a faulty voltage regulator at the Longbranch substation. The majority of the Unknown Cause outage minutes were from one event that resulted in a circuit breaker locking out while a hotline tag was in place, so there was no fault data. All damaged equipment was replaced at the time of restoration. No further action is required.
			11 Unknown Cause	49.17%	
			28 Other Cause	0.05%	
				100%	
LONGBRANCH - H9320980042	LONGBRANCH	H9320980042	03 Vegetation	78.96%	The majority of the Vegetation outage minutes were from one event due to an uprooted large dead ash tree falling across the lines at a double circuit pole BNK-2785. The majority of the Equipment Failure outage minutes were from one event due to a faulty voltage regulator at the Longbranch substation. All damaged equipment was replaced at the time of restoration. No further action is required. This circuit was last trimmed in 2022.
			20 Equipment Failure	18.02%	
			05 Planned (IEEE)	1.16%	
			11 Unknown Cause	1.15%	
			09 Public Accident/Damage	0.33%	
			19 Lightning Strike	0.20%	
			28 Other Cause	0.16%	
04 Wildlife	0.02%				
				100%	
LONGBRANCH - H9320980044	LONGBRANCH	H9320980044	03 Vegetation	99.93%	The majority of the Vegetation outage minutes were from one event due to an uprooted large dead ash tree falling across the lines at a double circuit pole BNK-2785. All damaged equipment was replaced at the time of restoration. No further action is required. This circuit was last trimmed in 2022.
			05 Planned (IEEE)	0.07%	
				100%	
MT ZION - H9323050042	MT ZION	H9323050042	05 Planned (IEEE)	50.10%	All of the Planned outage minutes were from one event scheduled to change out a live front to a dead front pad mount transformer. All of the Wildlife outage minutes were from one event due to an open tap fuse at pole 36BN-145 caused by a squirrel. All damaged equipment was replaced at the time of restoration. No further action is required.
			04 Wildlife	49.90%	
				100%	
MT ZION - H9323050043	MT ZION	H9323050043	03 Vegetation	84.47%	The majority of the Vegetation outage minutes were from one event due to a large locust tree falling across all three phases at pole 31BN-1896 causing the circuit breaker to lock out. The majority of the Equipment Failure outage minutes were from one event due to a bad T-splice at pad mount transformer 36BN-FE-11. All damaged equipment was replaced at the time of restoration. No further action is required. This circuit is scheduled to be trimmed in 2023.
			20 Equipment Failure	10.90%	
			11 Unknown Cause	3.16%	
			04 Wildlife	0.75%	
			05 Planned (IEEE)	0.38%	
			09 Public Accident/Damage	0.29%	
28 Other Cause	0.05%				
				100%	
MT ZION - H9323050044	MT ZION	H9323050044	11 Unknown Cause	79.89%	All of the Unknown Cause outage minutes were from one event that resulted in two blown fuses on terminal pole 36BN-410. All damaged equipment was replaced at the time of restoration. No further action is required.
			19 Lightning Strike	20.11%	
				100%	
OAKBROOK STA - H9322100042	OAKBROOK STA	H9322100042	20 Equipment Failure	92.58%	The majority of the Equipment Failure outage minutes were from one event due to a rear property, burnt pole 20BN-732 that resulted in conductors on the ground. All damaged equipment was replaced at the time of restoration. No further action is required.
			05 Planned (IEEE)	3.40%	
			04 Wildlife	2.15%	
			09 Public Accident/Damage	1.70%	
			28 Other Cause	0.16%	
				100%	
RICHWOOD - H9321990041	RICHWOOD	H9321990041	11 Unknown Cause	84.05%	All of the Unknown Cause outage minutes were from two events that both resulted in blown fuses. The majority of the Equipment Failure outage minutes were from one event due to a broken cross arm on pole 41BN-157. All damaged equipment was replaced at the time of restoration. No further action is required.
			20 Equipment Failure	10.79%	
			04 Wildlife	3.33%	
			05 Planned (IEEE)	1.83%	
				100%	
RICHWOOD - H9321990042	RICHWOOD	H9321990042	09 Public Accident/Damage	73.65%	The majority of the Public Accident/Damage outage minutes were from one event due to a vehicle hitting and breaking pole 36BN-329, which is a transmission pole with distribution underbuild. The majority of the Vegetation outage minutes were from two events. One event was due to trees on the line that caused a fuse to blow and the other event also resulted in a blown fuse. All damaged equipment was replaced at the time of restoration. No further action is required. This circuit is scheduled to be trimmed in 2023.
			03 Vegetation	14.28%	
			05 Planned (IEEE)	4.81%	
			20 Equipment Failure	3.79%	
			EA Weather	2.19%	
			11 Unknown Cause	0.99%	
			28 Other Cause	0.38%	
				100%	

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SILVER GROVE - H9320620042	SILVER GROVE	H9320620042	09 Public Accident/Damage	88.85%	All of the Public Accident/Damage outage minutes were from one event due to a vehicle hitting and breaking pole 37CA-34. The majority of the Vegetation outage minutes are the result of a tree branch falling, causing the phases to slap together at pole CA1-4341, resulting in a circuit lockout. All damaged equipment was replaced at the time of restoration. No further action required. This circuit was last trimmed in 2019.
			03 Vegetation	10.52%	
			EA Weather	0.25%	
			05 Planned (IEEE)	0.23%	
			28 Other Cause	0.12%	
			20 Equipment failure	0.03%	
				100%	
SILVER GROVE - H9320620043	SILVER GROVE	H9320620043	03 Vegetation	52.98%	The majority of the Vegetation outage minutes were from one event due to a limb on the lines at pole 41CA-38 that resulted in a circuit breaker locking out. The majority of the Lightning Strike outage minutes were from one event that resulted in a blown fuse. The majority of the Weather outage minutes were from one event that resulted in damage cutout and a overhead transformer. All damaged equipment was replaced at the time of restoration. No further action required. This circuit was last trimmed in 2019.
			19 Lightning strike	23.48%	
			EA Weather	12.75%	
			20 Equipment failure	4.77%	
			28 Other Cause	2.42%	
			04 Wildlife	2.23%	
05 Planned (IEEE)	1.37%				
				100%	
VERONA - H9321250042	VERONA	H9321250042	EA Weather	70.77%	The majority of the Weather outage minutes were from the same day, resulting in a wire down and several reclosers locking out. All of the Unknown Cause outage minutes were from one event due to wires down that resulted in a recloser locking out on phases B and C. All damaged equipment was repaired or replaced at the time of restoration. No further action is required.
			11 Unknown Cause	23.91%	
			03 Vegetation	4.35%	
			05 Planned (IEEE)	0.70%	
			20 Equipment failure	0.12%	
			19 Lightning strike	0.11%	
04 Wildlife	0.03%				
				100%	
VERONA - H9321250043	VERONA	H932125004	09 Public Accident/Damage	51.37%	All of the Public Accident/Damage outage minutes were from one event due to a vehicle hitting and breaking pole 33K-66 that caused the transformer to fall off the pole. All of the Vegetation outage minutes were from one event that resulted in a blown transformer fuse. All of the Weather outage minutes were from one event due to limbs on the line that resulted in a fire. All damaged equipment was replaced at the time of restoration. No further action is required. This circuit was last trimmed in 2022.
			03 Vegetation	15.85%	
			EA Weather	11.45%	
			20 Equipment failure	9.29%	
			05 Planned (IEEE)	7.87%	
			04 Wildlife	2.07%	
19 Lightning strike	1.11%				
28 Other Cause	1.00%				
				100%	
VILLA - H932430042	VILLA	H932430042	20 Equipment failure	72.91%	The majority of the Equipment Failure outage minutes were from one event due to a bad underground cable. All of the Unknown Cause outage minutes were from one event due to a bad cable in between terminal pole K95-661 and pad mount transformer K95-B1-1. All damaged equipment was replaced at the time of restoration. No further action is required.
			11 Unknown Cause	20.78%	
			04 Wildlife	3.64%	
			05 Planned (IEEE)	2.66%	
				100%	
WEST END STA - H40C0150041	WEST END STA	H40C0150041	20 Equipment failure	39.38%	The majority of the Equipment Failure outage minutes were from one event due to a broken porcelain dead end insulator at pole K61-700 that caused the conductor to drop to the ground. The majority of the Vegetation outage minutes were from one event due to tree falling onto a pole. The majority of the Public Accident/Damage outage minutes were from one event due to a vehicle hitting terminal pole K61-228 and damaging the U-channel/underground cable causing the circuit to lock out. All damaged equipment was replaced at the time of restoration. No further action is required. This circuit was last trimmed in 2022.
			03 Vegetation	38.42%	
			09 Public Accident/Damage	15.08%	
			05 Planned (IEEE)	6.56%	
			EA Weather	0.41%	
			04 Wildlife	0.16%	
				100%	
WILDER - H9320590044	WILDER	H9320590044	EA Weather	77.67%	All of the Weather outage minutes were from one event that resulted in a blown fuse. All of the Other Cause outage minutes were from one event that also resulted in a blown fuse. All damaged equipment was replaced at the time of restoration. No further action is required.
			28 Other Cause	21.55%	
			03 Vegetation	0.59%	
			19 Lightning strike	0.10%	
			20 Equipment failure	0.04%	
			11 Unknown Cause	0.03%	
09 Public Accident/Damage	0.02%				
				100%	
WILDER - H9320590045	WILDER	H9320590045	09 Public Accident/Damage	85.06%	The majority of the Public Accident/Damage outage minutes were from one event due to a vehicle hitting pole CA11-550, breaking the cross arm brace, causing the phases to make contact and a recloser to lock out. All damaged equipment was replaced. No further action is required.
			04 Wildlife	9.51%	
			20 Equipment failure	3.75%	
			EA Weather	1.39%	
			11 Unknown Cause	0.28%	
				100%	
WILDER - H9320590046	WILDER	H9320590046	11 Unknown Cause	62.82%	All of the Unknown Cause and Other Cause outage minutes were from one event due to the phases slapping together at pole CA13-79, causing a circuit breaker to lock out. The phases were tightened at the to of restoration. No further action is required.
			28 Other Cause	36.24%	
			05 Planned (IEEE)	0.37%	
			09 Public Accident/Damage	0.25%	
			03 Vegetation	0.23%	
20 Equipment failure	0.10%				
				100%	
WILDER - H9320590047	WILDER	H9320590047	20 Equipment failure	93.05%	The majority of the Equipment Failure outage minutes were from one event due to a disconnect switch on A phase that burnt down at pole CA12-325. All damaged equipment was replaced. No further action is required.
			EA Weather	3.23%	
			03 Vegetation	2.27%	
			05 Planned (IEEE)	1.36%	
			04 Wildlife	0.08%	
			28 Other Cause	0.02%	
				100%	

**Vegetation Management Program –
Duke Energy Kentucky, Inc**

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**Distribution Vegetation Management
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SECTION 1- GOAL, OBJECTIVES, AND PURPOSE

Duke Energy Kentucky's vegetation management goal is to balance the need for safe and reliable utility service with safe and cost-effective vegetation management practices.

The primary objective of the Duke Energy Kentucky Vegetation Management Program is to control the growth of incompatible vegetation along its electric lines to help provide safe and reliable service to our customers. This is accomplished by using qualified personnel to monitor the condition of the utility rights-of-way and by initiating various vegetation control practices to reduce, manage or eliminate incompatible growth. This integrated vegetation management program is essential in providing safe and reliable electric service by ensuring that trees and brush near or within rights-of-way are periodically trimmed or removed to help reduce potential outages and hazards near our facilities.

The consistent implementation of industry accepted vegetation management practices reduces the likelihood of tree and power line conflicts, as well as service interruptions, and allows for the full utilization of the operating system.



SECTION 2 – DEFINITIONS

ANSI A300 - American National Standards Institute (ANSI) A300 for Tree Care Operations provides the generally accepted industry performance standards for the care and management of trees, shrubs, and other woody plants.

ANSI Z133 - American National Standards Institute (ANSI) Z133 for Arboricultural Operations provides the generally accepted industry safety standards for the care and management of trees, shrubs, and other woody plants.

BRUSH - A perennial woody stem less than six inches DBH (diameter at breast height).

CIRCUIT MILES - (for reference and reporting purposes) The distance, in miles, of primary voltage electric lines from the substation to the end of the circuit including single phase, two phase or three phase configurations. The distance is measured to the nearest 1/10th of a mile.

COMPATIBLE VEGETATION – Vegetation within the distribution right of way that does not present a grow-in or fall-in threat that has a typical mature height of less than 15 feet and whose trunk is typically no closer than 20 feet from the center of the right of way.

CONTRACTOR - Corporation to whom the vegetation management work is awarded.

DANGER TREE – A tree that if it were to fall or be cut would be tall enough to strike electrical lines and equipment of the distribution system.

HAZARD TREE - A tree that is dead, structurally unsound, diseased, shallow-rooted, leaning or otherwise defective that could strike electrical lines or equipment of the distribution system if it falls or is cut.

INCOMPATIBLE VEGETATION – Vegetation within or outside the distribution right of way that will mature to a height or size that will pose a grow-in, fall-in, or blowing-together threat to the distribution conductor, or that will limit or block access to distribution facilities during routine or emergency maintenance activity.

INTEGRATED VEGETATION MANAGEMENT - Vegetation plan that combines various components including pruning, mowing, removals, and herbicide applications to manage the growth of vegetation on the electric utility rights-of-way.

LEGAL- Duke Energy Legal Department.

MAINTAINED/LANDSCAPED AREAS - An area where cut brush typically cannot be left on-site. Maintained areas typically include maintained yards and landscaped areas.

NON-MAINTAINED/NON-LANDSCAPED AREAS - An area where cut brush can be left on-site. Non-Maintained areas are unimproved areas or natural areas.

OPEN WIRE SECONDARY (OWS): A distribution line configuration that uses 2, 3 or 4 un-insulated conductors stacked vertically with 12 inches spacing between conductors, used to deliver secondary voltages ranging from 120-600 volts to the customer.



SECTION 2 – DEFINITIONS CONTINUED

PRIMARY LINE: Electric conductor(s) energized at greater than 600 volts of electricity.

RIGHT-OF-WAY (ROW)- A strip of land that an electric utility uses to construct, operate, inspect, maintain, repair, or replace an overhead or underground power line. The ROW allows the utility to provide clearance from trees, buildings and other structures that could interfere with the line installation, maintenance, and operation. ROW may include licenses, easements and other rights to access property.

SECONDARY LINE: Electric conductor(s) are energized at 600 volts or less of electricity.

SERVICE – TRIPLEX – MULTIPLEX CABLE: Electric conductor(s) energized at 600 volts or less of electricity and terminate at a service delivery point. A bundle of three or four conductors, most commonly used to provide aerial service to homes and businesses, denoted by its 3 or 4 polyethylene coated conductors wrapped around a bare, aluminum conductor.

SINGLE PHASE PRIMARY: A type of electric power line construction that contains one (1) conductor energized at primary voltage.

THREE PHASE PRIMARY: A type of electric power line construction that contains three (3) conductors energized at primary voltage.

TREE- A perennial woody stem equal or greater than six inches in DBH (diameter at breast height)

TWO PHASE OR OPEN WYE: A type of electric power line construction that contains two (2) conductors energized at primary voltage.

UNIT MILE: A mile within a circuit that is required to be or has been trimmed per contract specifications.



SECTION 3 – FEDERAL, STATE, AND LOCAL LAWS

Contractor shall perform all work in conformance with Duke Energy Kentucky Vegetation Management Program requirements and work specifications, Occupational Health and Safety Administration (OSHA) regulations, American National Standards Institute (ANSI) A300 and Z133, and all federal, state, county, and municipal laws, ordinances, and regulations applicable to said work.

The governing entities include but are not limited to:

- Kentucky Public Services Commission (Commission)
- Kentucky Transportation Cabinet (Department of Transportation)
- Kentucky Department of Agriculture
- Occupational Health and Safety Administration (OSHA)
- American National Standards Institute (ANSI)
- Easement and/or Permit Documents



SECTION 4 – PROPERTY ACCESS RIGHTS / REQUIREMENTS

The rights to access, inspect, or perform the work associated with vegetation management practices include, but are not limited to, established legal instruments, easements, public road rights-of-way, municipal ordinances, state statutes, regulatory rules, tariffs, and other legal authority. Personnel responsible for implementing vegetation management on behalf of Duke Energy Kentucky should, when necessary, utilize the available supporting documents to pursue the completion of necessary work activities to maintain vegetation growth to the established standards of acceptance in the provision of safe and reliable electric service. If there are objections, restrictions or limitations that prevent completion of the necessary work activities, personnel should contact the Land Services Department or Legal Department for specialized assistance.

A list of items to determine property access rights include, but are not limited to:

- Existing property easement, prescriptive easements, public road rights of way and / or agreements
- State statutes
- Municipal codes
- Commission rules, regulations, orders, and approved tariffs.



SECTION 5 – WORK QUALITY AND SAFETY STANDARDS

All work shall be performed in conformance with the governing rules from the following: Duke Energy Kentucky Vegetation Management Program Requirements, OSHA regulations, National Electrical Safety Code (NESC) and all federal, state, county, and municipal laws, statutes, ordinances, and regulations applicable to said work.

Clearance to obtain safety and reliable electric service are based on, but not limited to, consideration of the following:

NESC

ANSI A300 Standard - American National Standards Institute A300 for Tree Care Operations
For utility line clearance work, the primary foci are Parts 1, 7 and 9.

ANSI Z133 Standard - American National Standards Institute Z133 for Tree Care Operations - Safety Requirements

OSHA Standard 29 Code of Federal Regulations (CFR) 1910.269 - OSHA Standard 29 CFR 1910.269 (a)(1)(i)(E) for Electric Power Generation, Transmission, and Distribution

Pruning Trees Near Electrical Utility Lines – A Field Pocket Guide for Qualified Line-Clearance Tree Workers by Dr. Alex L. Shigo



SECTION 6 – DISTRIBUTION VEGETATION MANAGEMENT OVERVIEW FOR PLANNED WORK

Based on a data driven approach and to facilitate a 5-year trim cycle, Duke Energy Kentucky will review, and clear vegetation as needed from approximately 20% of distribution system miles annually. Vegetation maintenance may include tree pruning, mechanical trimming, brush cutting/mastication, herbicide application and tree removal. The primary objective of the Duke Energy Kentucky Vegetation Management Program is to control the growth of incompatible vegetation and remove hazard trees along its electric lines to help provide safe and reliable service to our customers by limiting or eliminating the possibility of contact by vegetation which has grown towards or could fall into the overhead distribution lines. This is accomplished by using qualified personnel to monitor the condition of the utility rights-of-way and by initiating various vegetation control practices to reduce, manage or eliminate incompatible growth.

The consistent implementation of industry accepted vegetation management practices reduces the likelihood of tree and power line conflicts, as well as service interruptions, and allows for the full utilization of the operating system.

Distribution Line Clearances

Trees located along the right-of-way edge will, in most cases, encroach upon the electrical conductors through the side growth of their limbs. The maintenance of these trees requires the removal or partial removal of those potentially interfering limbs. Industry standards dictate the proper methods of “pruning” such limbs to minimize any damages to the tree. Incompatible brush within the distribution right-of-way corridors is eliminated if possible. When such vegetation is eliminated, it will normally be cut down either by manual or mechanical means.

- Primary distribution lines are typically cleared during routine pruning to obtain no less than ten feet of side clearance. Unsuitable branches which are dead, dying, diseased or structurally unsound and above distribution facilities are removed during pruning.
- Secondary, including open wire secondary distribution conductors (without a primary distribution line and excluding a service drop), are trimmed on an as needed basis.
- Multiplex cables and guy wires (without a primary distribution line and excluding a service drop), are trimmed on an as needed basis. Removal of load bearing limbs that are in contact with conductors and have a size and weight that causes tension on the conductor or interference with the normal sag or alignment of the conductor will be pruned for a minimum of 12 inches of clearance.
- Duke Energy Kentucky shall have no responsibility to clear vegetation from a service drop.

Hazard Tree Mitigation

Trees found within or adjacent to the right-of way that are dead, structurally unsound, diseased, shallow-rooted, leaning or otherwise defective that could strike electrical lines or equipment are targeted to be taken down. Stumps from trees (live) taken down shall be treated with herbicides where appropriate and possible.



SECTION 7 – INSPECTIONS AND MONITORING

Duke Energy Kentucky can and may perform inspections on distribution circuits to observe vegetation conditions on the distribution system. These inspections should provide for the capabilities to specifically identify potentially incompatible vegetation conditions. The intent of these inspections is to identify off-cycle vegetation threats along the distribution line corridors and take appropriate action.



**Transmission Vegetation Management Program –
Duke Energy Kentucky, Inc.**



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SECTION 1 – GOALS, OBJECTIVES AND PURPOSE

Duke Energy Kentucky’s vegetation management goal is to balance the need for safe and reliable utility service with safe and cost-effective vegetation management practices.

The primary objective of the Duke Energy Kentucky Vegetation Management Program is to control the growth of incompatible vegetation along its electric lines to help provide safe and reliable service to our customers. This is accomplished by using qualified personnel to monitor the condition of the utility rights-of-way and by initiating various vegetation control practices to reduce, manage or eliminate incompatible growth. This integrated vegetation management program is essential in providing safe and reliable electric service by ensuring that trees and brush near or within rights-of-way are periodically trimmed or removed to help reduce potential outages and hazards near our facilities.

The consistent implementation of industry accepted vegetation management practices reduces the likelihood of tree and power line conflicts, as well as service interruptions, and allows for the full utilization of the operating system.



SECTION 2 – DEFINITIONS

ANSI A300 - American National Standards Institute (ANSI) A300 for Tree Care Operations, provides the generally accepted industry performance standards for the care and management of trees, shrubs, and other woody plants.

ANSI Z133 - American National Standards Institute (ANSI) Z133 for Arboricultural Operations, provides the generally accepted industry safety standards for the care and management of trees, shrubs, and other woody plants.

ASSET PROTECTION - Duke Energy department that enforces transmission right of way legal rights.

BRUSH - A perennial woody stem less than six inches DBH (diameter at breast height).

COMPATIBLE VEGETATION – Vegetation within the Transmission Right of Way that will not mature to a height or size that will pose a grow-in, fall-in, or blowing-together threat to the transmission conductor, or that will not limit or block access, or the safe and reliable operation, emergency restoration, or maintenance activity, which is typically within 25 feet of any Duke Energy facilities (towers, poles, guy wires, guy anchors, etc.).

CONTRACTOR - Corporation to whom the Vegetation Management work is awarded.

CONDUCTOR BLOWOUT – Conductors horizontal position/location at National Electrical Safety Code (NESC) designed wind and temperature.

CONDUCTOR SAG – Conductors vertical position/location at designed maximum operating conditions.

DANGER TREE – A tree that if it were to fall or be cut would be tall enough to strike electrical lines and equipment of the transmission or distribution system.

HAZARD TREE - A tree that is dead, structurally unsound, diseased, shallow-rooted, leaning or otherwise defective that could strike electrical lines or equipment of the transmission system if it falls or is cut.

INCOMPATIBLE VEGETATION – Vegetation within or outside the Transmission Right of Way that will mature to a height or size that will pose a grow-in, fall-in, or blowing-together threat to the transmission conductor, or that will limit or block access, or the safe and reliable operation, emergency restoration, or maintenance activity, which is typically within 25 feet of any Duke Energy facilities (towers, poles, guy wires, guy anchors, etc.).

INTEGRATED VEGETATION MANAGEMENT - Vegetation plan that combines various components including pruning, mowing, removals, and herbicide applications to manage the growth of vegetation on the electric utility rights-of-way.

LEGAL- Duke Energy Legal Department.

MAINTAINED/LANDSCAPED AREAS - An area where cut brush typically cannot be left on-site. Maintained areas typically include maintained yards and landscaped areas.

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION (NERC) CIRCUITS – Transmission lines typically operated at more than 200 kV. Some transmission lines operated at voltages lower than 200 kV may be designated as NERC circuits if deemed critical.



SECTION 2 – DEFINITIONS CONTINUED

NON-NERC CIRCUITS – Transmission lines that typically operate at less than 200 kV.

NON-MAINTAINED/NON-LANDSCAPED AREAS - An area where cut brush can be left on-site. Non-Maintained areas are unimproved areas or natural areas.

RECLAMATION – The establishment or reestablishment of Integrated Vegetation Management (IVM) objectives in areas not actively maintained.

RIGHT-OF-WAY (ROW)- A strip of land that an electric utility uses to construct, operate, inspect, maintain, repair, or replace an overhead or underground power line. The ROW allows the utility to provide clearance from trees, buildings and other structures that could interfere with line installation, maintenance, and operation. ROW may include licenses, easements and other rights to access property.

TRANSMISSION LINE– A set of electrical conductors that carry 69 kV or more of electricity.

TREE- A perennial woody stem equal or greater than six inches in DBH (diameter at breast height)

SECTION 3 – FEDERAL, STATE, AND LOCAL LAWS

Contractor shall perform all work in conformance with the Duke Energy Kentucky Vegetation Management Program requirements and work specifications, Occupational Health and Safety Administration (OSHA) regulations, American National Standards Institute (ANSI) A300 and Z133, and all federal, state, county, and municipal laws, ordinances, and regulations applicable to said work.

The governing entities include but are not limited to:

- Kentucky Public Service Commission (Commission)
- Kentucky Transportation Cabinet (Department of Transportation)
- Kentucky Department of Agriculture
- Occupational Health and Safety Administration (OSHA)
- American National Standards Institute (ANSI)
- Easement and/or Permit Documents



SECTION 4 – PROPERTY ACCESS RIGHTS / REQUIREMENTS

The rights to access, inspect, or perform the work associated with vegetation management practices include, but are not limited to, established legal instruments, easements, public road rights-of-way, municipal ordinances, state statutes, regulatory rules, tariffs, and other legal authority. Personnel responsible for implementing vegetation management on behalf of Duke Energy Kentucky should, when necessary, utilize the available supporting documents to pursue the completion of necessary work activities to maintain vegetation growth to the established standards of acceptance in the provision of safe and reliable electric service. If there are objections, restrictions or limitations that prevent completion of the necessary work activities, Duke Energy Vegetation Management should contact the Land Services Department or Legal Department for specialized assistance.

A list of items to determine property access rights include, but are not limited to:

- Existing property easement, prescriptive easements, public road rights of way and / or agreements
- State statutes
- Municipal codes
- Commission rules, regulations, orders, and approved tariffs.



SECTION 5 – WORK QUALITY AND SAFETY STANDARDS

All work shall be performed in conformance with the governing rules from the following: Duke Energy Kentucky Vegetation Management Program Requirements, OSHA regulations, NESC and all federal, state, county, and municipal laws, statutes, ordinances, and regulations applicable to said work.

Clearance to obtain safety and reliable electric service are based on, but not limited to, consideration of the following:

National Electrical Safety Code (NESC)

ANSI A300 Standard - American National Standards Institute A300 for Tree Care Operations

- For utility line clearance work, the primary foci are Parts 1, 7 and 9.

ANSI Z133 Standard - American National Standards Institute Z133 for Tree Care Operations - Safety Requirements

OSHA Standard 29 Code of Federal Regulations (CFR) 1910.269 -OSHA Standard 29 CFR 1910.269 (a)(1)(i)(E) for Electric Power Generation, Transmission, and Distribution

Pruning Trees Near Electrical Utility Lines – A Field Pocket Guide for Qualified Line-Clearance Tree Workers by Dr. Alex L. Shigo



SECTION 6 – TRANSMISSION VEGETATION MANAGEMENT OVERVIEW FOR PLANNED WORK

Duke Energy's program is designed on an Integrated Vegetation Management (IVM) strategy that targets removals of incompatible vegetation to minimize potential outages to the Transmission system and ensure necessary access within all transmission line corridors. The reason for IVM is to create, promote, and conserve sustainable plant communities that are compatible with the intended use of the site, and manage incompatible plants that may conflict with the intended use of the site. This approach is recognized as an industry best management practice and is in alignment with ANSI A300 Part 7 standard.

As part of an IVM strategy, Duke Energy utilizes a threat and condition-based approach to planned work. This approach of identifying threats as triggers to determine incompatible vegetation within and outside the Transmission Right of Way. Duke Energy utilizes a process to define compatible and incompatible vegetation to balance the needs of public and worker safety as well as the reliable operation of the Transmission system. A time-based herbicide program will be used to further manage the ROW of incompatible vegetation and support IVM.

THREAT/CONDITION-BASED TRIGGERS

For planned work, threat trigger distances are used to identify vegetation threats that do not allow for safe operation of the transmission facilities, under all operating conditions (designed blowout and designed maximum operating sag). These threat triggers are radial distances based on engineering design criteria for the conductor sag and blowout operating locations and are voltage dependent.

These threat trigger distances provide for approximately 6 years of typical vegetation re-growth and supports minimum safe worker distances. Once vegetation has been identified as a threat, the vegetation will be evaluated to determine a mitigation strategy through the work planning process.

THREAT/CONDITION-BASED ACTION

During the work planning and marking process, many factors and criteria must be considered when developing the mitigation strategy. A Duke Energy Kentucky utility vegetation management professional will evaluate the vegetation based on arboricultural, regulatory/safety standards, legal ROW rights and criteria such as size, age, location, growth rate, maintained/landscaped vs. non-maintained/non-landscaped, etc. Property owner concerns with the proposed mitigation strategy shall be communicated to Duke Energy Kentucky personnel and alternative mitigation strategies will be considered. One mitigation strategy includes herbicide application.



MITIGATION FOR INCOMPATIBLE VEGETATION THREATS

All identified incompatible vegetation will be evaluated and removed.

SPECIAL/SPECIFIC SITUATIONS

Potential Outage Risk: When a Transmission outage risk is identified, Duke Energy Kentucky will attempt to notify the affected property owner if practical and possible. However, Duke Energy Kentucky may need to take immediate action, such as remove the vegetation, to protect the reliability and security of the Transmission system.

Roadside: For situations such as roadside, overhead Transmission lines built within public road right of way with limited Transmission Right of Way rights, a Wire Zone / Border Zone approach will be utilized with property owners to manage vegetation threats within and outside of the public road right of way.

Off ROW Danger Tree: Duke Energy Kentucky personnel will focus on removing danger tree threats for reliability and storm hardening purposes on narrow corridors or rural areas where rights outside of the easement allow.

Storm: During storm events, debris in maintained or landscaped areas associated with emergency operations restoration efforts will be left on site and is the responsibility of the property owner.



SECTION 7 – INSPECTION AND MONITORING

Duke Energy Kentucky can and may perform inspections on each transmission circuit (69kv and above) to observe vegetation conditions on the transmission system. These inspections should provide for the capabilities to specifically identify potentially incompatible vegetation conditions. The intent of these inspections is to identify off-cycle vegetation threats along the transmission line corridors and take appropriate action.



SECTION 8 – VEGETATION CONTROL METHODS

TREE PRUNING - Trees found within or adjacent to the right-of-way edge will, in most cases, encroach upon the electrical conductors through the growth of their limbs. The management of these trees requires the removal or partial removal of those potentially interfering limbs. Industry standards dictate the proper methods of “pruning” such limbs to minimize any damages to the tree. These methods are in alignment with industry standards which refer to natural pruning, drop crotch and lateral pruning techniques. Stubbing and tearing of bark shall be avoided. When utilizing boom mounted cutting devices or helicopters to perform the pruning activities in rural locations, proper pruning methods are not typically a viable option.

HAZARD TREE MITIGATION - Trees found within or adjacent to the right-of way that are dead, structurally unsound, diseased, shallow-rooted, leaning or otherwise defective that could strike electrical lines or equipment are targeted to be taken down. Stumps from downed trees shall be treated with herbicides where appropriate and possible.

INCOMPATIBLE VEGETATION MITIGATION (i.e., trees) - Trees which are in close proximity to electrical facilities can require extensive pruning to prevent them from causing reliability or safety risk. These trees within the right-of-way will be targeted to be taken down and Duke Energy Kentucky will attempt to notify the affected property owner.

BRUSH MANAGEMENT - Because of a variety of terrain, differences in soil, land use, and vegetation types, Duke Energy Kentucky uses IVM practices which include environmentally acceptable herbicides to control brush within the right-of-way. All herbicides used in brush management operations shall be registered with the EPA and the applicable regulating state authority. In situations where brush height is of significant size and therefore not conducive to herbicide applications, the right of way may be mechanically mowed. In landscaped/maintained areas, brush will typically be hand cut and the remaining stumps treated.



SECTION 9 – CONTRACTOR RESPONSIBILITIES

STANDARDS TO FOLLOW - Contractor shall perform all work in conformance with Duke Energy Kentucky Vegetation Management Program requirements (Contract Terms and Conditions).