#### **COMMONWEALTH OF KENTUCKY**

#### BEFORE THE PUBLIC SERVICE COMMISSION

#### In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC RATES, A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO DEPLOY ADVANCED METERING INFRASTRUCTURE, APPROVAL OF CERTAIN REGULATORY AND ACCOUNTING TREATMENTS, AND ESTABLISHMENT OF A ONE-YEAR SUR-CREDIT	) ) CASE NO. 2020-00349 ) )
ELECTRONIC APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC AND GAS RATES, A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO DEPLOY ADVANCED METER INFRASTRUCTURE, APPROVAL OF CERTAIN REGULATORY AND ACCOUNTING TREATMENTS, AND ESTABLISHMENT OF A ONE-YEAR SURCREDIT	) ) ) CASE NO. 2020-00350 ) )

# RESPONSE OF KENTUCKY UTILITIES COMPANY AND LOUISVILLE GAS AND ELECTRIC COMPANY TO

JOINT INTERVENORS' SECOND SUPPLEMENTAL REQUESTS
MOUNTAIN ASSOCIATION, KENTUCKIANS FOR THE COMMONWEALTH,
KENTUCKY SOLAR ENERGY SOCIETY
AND METROPOLITAN HOUSING COALITION'S
REQUEST FOR INFORMATION
DATED JULY 22, 2021

FILED: AUGUST 2, 2021

COMMONWEALTH OF KENTUCKY	,
COUNTY OF JEFFERSON	,

July 11, 2022

The undersigned, **Robert M. Conroy**, being duly sworn, deposes and says that he is Vice President, State Regulation and Rates, for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge, and belief.

Robert M. Conroy

Subscribed and sworn t and State, thisday of	o before me, a Notary Public in and before said County  August  2021.
	Notary Public
	Notary Public ID No
My Commission Expires:	

COMMONWEALTH OF KENTUCKY	)
	)
COUNTY OF JEFFERSON	)

The undersigned, **Elizabeth J. McFarland**, being duly sworn, deposes and says that she is Vice President, Transmission for Louisville Gas and Electric Company and Kentucky Utilities Company and an employee of LG&E and KU Services Company, and that she has personal knowledge of the matters set forth in the responses for which she is identified as the witness, and the answers contained therein are true and correct to the best of her information, knowledge, and belief.

Elizabeth J. McFarland

Cylith & Mcfall

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 30 day of 2021.

Notary Public

Notary Public, ID No. KYNP14646

My Commission Expires:

10-16-2020

COMMONWEALTH OF KENTUCKY	)
COUNTY OF JEFFERSON	)

The undersigned, **Eileen L. Saunders**, being duly sworn, deposes and says that she is Vice President, Customer Services for Louisville Gas and Electric Company and Kentucky Utilities Company and an employee of LG&E and KU Services Company, and that she has personal knowledge of the matters set forth in the responses for which she is identified as the witness, and the answers contained therein are true and correct to the best of her information, knowledge, and belief.

Eileen L. Saunders

Notary Public ID No. KYNP32193

My Commission Expires:

JUNE 25, 2025

STATE OF NORTH CAROLINA	)
COUNTY OF BUNCOMBE	)
The undersigned, William Stev	ven Seelye, being duly sworn, deposes and states
that he is a Principal of The Prime Grou	p, LLC, and that he has personal knowledge of the
-	the best of his information, knowledge and belief.  William Steven Seelye
Subscribed and sworn to before State, this	me, a Notary Public in and before said County and  2021.  SEAL)  Notary Public ID No. 2021 (SEAL)
My Commission Expires:	
OZ lozhor	Adam Curren

Notary Public scends County, NC my IDS 20210450012 ster Expirus: 83/02/2026

COMMONWEALTH OF KENTUCKY	)
COUNTY OF JEFFERSON	

The undersigned, **David S. Sinclair**, being duly sworn, deposes and says that he is Vice President, Energy Supply and Analysis for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge, and belief.

David S. Sinclair

Notary Public ID No. 1 NP 32 193

My Commission Expires:

04-25-2025

COMMONWEALTH OF KENTUCKY					
COUNTY OF JEFFERSON	3				

The undersigned, **John K. Wolfe**, being duly sworn, deposes and says that he is Vice President, Electric Distribution for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

John K. Wolfe

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 3044 day of \_\_\_\_\_\_\_ 2021.

Notary Public

Notary Public ID No. 603967

My Commission Expires:

July 11, 2022

Joint Intervenors' Second Supplemental Requests

Mountain Association, Kentuckians for the Commonwealth, Kentucky Solar Energy
Society and Metropolitan Housing Coalition's Request for Information
Dated July 22, 2021

Case No. 2020-00349 / Case No. 2020-00350

#### Question No. 1

Responding Witness: David S. Sinclair

- Q-1. Please reference the Integrated Resource Plan LGE/KU filed in Case No. 2018-00348 in answer to these questions:
  - 1. In developing the Integrated Resource Plan, the company indicated that "the Companies evaluated whether in the near-term existing resources should be replaced with a combination of battery storage and renewables. Several of the cases required significant amounts of replacement capacity in the latter part of the 15-year planning period. For these cases, the Companies evaluated replacement generation portfolios with varying amounts of natural gas and renewable generation, as well as battery storage, for the purpose of demonstrating under what circumstances different portfolios would be least-cost for customers." 2018 IRP Vol. 1 p. 5-19.
    - a. Has the company updated the assumptions in the evaluation of whether existing resources should be replaced with a combination of battery storage and renewables, to account for changes in the cost and performance of renewable generation and battery storage? If so, please provide those updated evaluations and assumptions used to support those evaluations. If not, why not?
  - 2. In the 2018 IRP, LGE/KU noted that the "primary focus of resource planning is risk management. Key categories of risk stem from uncertainties related to the way customers use electricity, the performance of generation units, the price of fuel and other commodities, and the future impact of new state and federal regulations. Given these5 uncertainties, the Companies developed long-range resource plans for numerous cases over a range of forecasted energy requirements, fuel prices, carbon dioxide ("CO2") prices, and generating unit operating lives." 2018 IRP Vol. 1 p. 5-19.

- a. Have LGE/KU updated the range of values used for fuel prices and fuel prices? If so, please provide the updated values and updated plans reflecting those new fuel and CO2 prices.
- b. Have LGE/KU analyzed the value of distributed renewable generation in:
  - i. mitigating against volatility of fuel prices?
  - ii. mitigating the future impact and costs of compliance with new state and federal regulations on air emissions, water discharges, and waste disposal requirements?
  - iii. mitigating against the cost of compliance specifically with reductions and/or controls on carbon dioxide emissions?

If the answer is "yes" for any of these questions, please provide the analyses performed including all inputs and assumptions.

A-1.

1.

a. The following table compares the cost and performance assumptions for solar, wind, and battery storage from the Companies' 2018 IRP, which was based on NREL's 2018 ATB, and data from NREL's 2020 ATB for 2021 in-service. The costs for solar and wind located in Kentucky have increased while the costs for non-Kentucky wind has declined. NREL's 2018 ATB considered an 8-hour battery with fixed and variable O&M costs, while their 2020 ATB considers 2-hour and 4-hour batteries with only fixed O&M costs.

The Companies will file their 2021 IRP by October 19, 2021, which will include an updated analysis of the lowest reasonable cost way to reliably meet customers' energy needs based on the projected potential need for and costs of new generation and storage resources.

Cost and Performance Comparison for Renewables and Batteries (2018 dollars)

uonarsj								
2018 IRP – 2018 In-Service								
	Solar	KY Wind	Non-KY Wind	8-Hour Battery				
Capital (\$/kW)	1,093	1,637	1,515	2,073				
Fixed O&M (\$/kW-year)	10	53	53	9				
Variable O&M (\$/MWh)	NA	NA	NA	2.72				
Capacity Factor (%)	18-22	30-40	40-50	NA				
2020 ATB - 2021 In-Serv	ice							
	Solar	KY Wind	Non-KY Wind	4-Hour Battery				
Capital (\$/kW)	1,274	2,442	1,459	1,365				
Fixed O&M (\$/kW-year)	15	42.14	42.14	34.11				
Variable O&M (\$/MWh)	NA	NA	NA	0				
Capacity Factor (%)	28	27	42	NA				

2.

a. See attachment for fuel and CO<sub>2</sub> price forecasts from the 2018 IRP as well as fuel prices from the 2021 BP. The Companies do not have an updated CO<sub>2</sub> price forecast. In the 2021 IRP, the Companies will model compliance with clean energy standards and CO<sub>2</sub> reduction targets. Neither of these types of regulations for reducing CO<sub>2</sub> emissions involves a CO<sub>2</sub> price. Certain information is confidential and proprietary and is being provided under seal pursuant to a petition for confidential protection.

**b**.

- i. No. The volatility of fuel prices is already low due to the Companies' fuel procurement strategy and diversity of their generation resources.
- ii. Yes. See Exhibit SAW-1 ("Analysis of 2020 Environmental Compliance Plan Projects") in Case Nos. 2020-00060 and 2020-00061.
- iii. Yes. See "2018 IRP Long-Term Resource Planning Analysis" in Volume III of the 2018 IRP (Case No. 2018-000348) and Exhibit DSS-2 ("2019 Resource Assessment: Renewable RFP") in Case No. 2020-00016.

2018 IRP											
		d Natural G ninal \$/MN		Delive	ered Co	al Prices (No	ominal \$/N	/IMBtu)	CO <sub>2</sub> Prices (Nominal \$/short ton)		
Year	Low	Base	High	Brown	Brown Ghent Mill Creek High Sulfur					High	
2019									0	0	
2020									0	0	
2021									0	0	
2022									0	0	
2023									0	0	
2024									0	0	
2025									0	0	
2026									0	17.00	
2027									0	18.17	
2028									0	19.37	
2029									0	20.62	
2030									0	21.90	
2031									0	23.23	
2032									0	24.59	
2033									0	26.00	

	2021 BP																	
	Delivere	d Natural G	as Prices		Delivered Coal Prices (Nominal \$/MMBtu)													
	(Non	ninal \$/MN	/IBtu)			Low					Base					High		
Year	Low	Base	High	Brown	Ghent	Mill Creek	Trimble High Sulfur	Trimble PRB	Brown	Ghent	Mill Creek	Trimble High Sulfur	Trimble PRB	Brown	Ghent	Mill Creek	Trimble High Sulfur	Trimble PRB
2021																		
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Joint Intervenors' Second Supplemental Requests

Mountain Association, Kentuckians for the Commonwealth, Kentucky Solar Energy
Society and Metropolitan Housing Coalition's Request for Information

Dated July 22, 2021

Case No. 2020-00349 / Case No. 2020-00350

Question No. 2

Responding Witness: David S. Sinclair

- Q-2. In the 2018 IRP, LGE/KU assumed that "CO2 prices would begin in 2026 in the High CO2 price scenario." Has LGE/KU updated the assumptions and prices assigned to CO2 under the various scenarios in the 2018 IRP? If so, please provide all updated assumptions and prices assigned to CO2.
- A-2. See the response to Question No. 1-2a.

Joint Intervenors' Second Supplemental Requests

Mountain Association, Kentuckians for the Commonwealth, Kentucky Solar Energy
Society and Metropolitan Housing Coalition's Request for Information

Dated July 22, 2021

Case No. 2020-00349 / Case No. 2020-00350

#### Question No. 3

Responding Witness: David S. Sinclair

- Q-3. According to the 2018 IRP, the "generation cost forecasts utilized... was taken from the 2018 Annual Technology Baseline from the National Renewable Energy Laboratory[.]" The IRP noted that "[s]ince the Companies' 2014 IRP, the cost of renewable and battery technologies have decreased significantly. NREL expects this trend to continue, albeit at a slower rate."
  - 1. Has LGE/KU updated the generation technology cost forecasts for renewable and battery technologies to reflect the 2021 Annual Technology Baseline published by the NREL? If so, please provide those forecasts for PV and PV plus battery.

A-3.

1. No. The 2021 ATB was published after the Supplemental Testimony was filed in these proceedings. NREL's 2021 ATB data is publicly available at <a href="https://atb.nrel.gov/electricity/2021/data">https://atb.nrel.gov/electricity/2021/data</a>.

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#### Question No. 4

Responding Witness: Robert M. Conroy / Counsel

- Q-4. Reference the Direct Supplemental Testimony of witness Conroy at p. 4:
  - 1. Is it your testimony that 807 KAR 5:054 applies to net metering as authorized and defined in KRS 278.465 468?
  - 2. Is it your testimony that an eligible customer-generator taking service under a net metering tariff is a "qualifying facility" whose compensatory credit is governed or limited by 807 KAR 5:054 or the Public Utility Regulatory Policies Act of 1978?
  - 3. Is it your testimony that 807 KAR 5:054 applies to the net metering relationship between a utility and an eligible customer-generator, even though the regulation provides at Section 3 that it applies only to purchases or sales to and from qualifying facilities?
  - 4. It is your testimony that the crediting of the generation fed back to the grid by an eligible customer-generator is a sale or purchase of electricity?
  - 5. Is it the position of yourself and the companies that the jurisdiction and discretion of the Commission to determine fair compensatory credit for fedin solar and the costs of service of customers taking service under a net metering tariff is limited in any manner by FERC regulation or by 807 KAR 5:054?

#### A-4. Response to all subparts:

Counsel objects to the request to the extent the requests call for a legal conclusion. Without waiver of the objection, no, the Companies do not believe that 807 KAR 5:054 or federal law regarding qualifying facilities ("QFs") is binding concerning net metering in Kentucky. Indeed, the first clause of the paragraph that begins at line 5 of page 4 states, "In contrast to the limiting principles embedded in the QF

regulation," before expressing the concern that the lack of such limiting principles for net metering is problematic.

But just because QF-related law does not *bind* the Commission regarding net metering compensation rates does not mean it cannot or should not *inform* the Commission's approach to formulating such rates. The Companies' view is that formulating net metering compensation rates that are fair, just, and reasonable for all customers—including the overwhelming majority of customers who will never be eligible customer-generators—requires adhering to fundamental avoided cost principles like those expressed in the Commission's QF regulation. To do otherwise would violate the Commission's longstanding axiom that utilities must provide service at the lowest reasonable cost, which the Commission has characterized as a statutory requirement: "LG&E has a statutory obligation under KRS 278.030 to serve its customers at the lowest reasonable cost."

This is true regardless of whether the crediting of the generation fed back to the grid by an eligible customer-generator is a sale or purchase of electricity; however it is characterized, the credits NMS-2 customers will receive will be collected from *all* customers through the Companies' Fuel Adjustment Clause mechanisms. Therefore, NMS-2 rates must be consistent with lowest reasonable cost principles, and the Commission's QF regulation, though not binding, provides helpful guidance regarding how to set NMS-2 compensation rates.

<sup>&</sup>lt;sup>1</sup> An Investigation of Electric Rates of Louisville Gas and Electric Company to Implement a 25 Percent Disallowance of Trimble County Unit No. 1, Case No. 10320, Order at 19 (Ky. PSC Oct. 2, 1989). See also, e.g., Application of Big Rivers Electric Corp. for a General Adjustment in Its Rates, Case No. 2009-00040, Order at 2 (Ky. PSC Aug. 14, 2009) ("Big Rivers must be diligent in determining future expenses, as well as capital investments, to ensure that it is providing a high quality of service at the lowest reasonable cost."); Application of The Union Light, Heat and Power Company for Certain Findings under 15 U.S.C. Sec. 79Z, Case No. 2001-00058, Order at 7 (Ky. PSC May 11, 2001) ("The Commission believes that reviewing ULH&P's power supply alternatives will be critical to assuring northern Kentucky that it will have a long-term reliable power supply at the lowest reasonable cost.").

Joint Intervenors' Second Supplemental Requests

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Case No. 2020-00349 / Case No. 2020-00350

#### Question No. 5

Responding Witness: Robert M. Conroy

Q-5. On Page 4 of the Direct Supplemental Testimony of witness Conroy, it is stated that:

"In contrast to the limiting principles embedded in the QF regulation, the methodology approved in the Kentucky Power case and now proposed in this case for determining avoided cost has no such boundaries. Under the present proposal, there are eight components, but there are no controls, or checks and balances on adding additional components. Thus, the possibility of adding greater and greater amounts of cost is unlimited. This is a fundamental flaw that cannot be cured."

- 1. Is it your testimony that the Commission cannot be trusted to determine what components of costs and benefits should be considered in determining the value of the compensatory credit to be assigned fed-back electricity, or the actual cost of service of eligible customer-generators?
- 2. Is it your testimony that judicial review of a Commission decision "adding additional components" to the eight identified in the Kentucky Power Company case (May 14, 2021 Order, Case No. 2020-00174) is unavailable?
- 3. If such review is available, would that not constitute a "control, check, and balance?"
- 4. Are you aware that the Kentucky General Assembly assigned the task of determining the value to be assigned for the compensatory credit for fed-back electricity to the Commission?
- 5. Did your company support or oppose Senate Bill 100 as it was enacted by the General Assembly?

- 6. Are you aware that in the Supplemental Direct Testimony of witness Seelye, p. 7 lines 12-19, he acknowledged that the seven avoided cost "components" your testimony references at, which were adopted in the KPC May 14, 2021 Order and were identified in the June 30, 2021.rder in these proceedings, "represent reasonable types of avoided costs that could be considered with respect to export compensation rates under NMS-2"?
- 7. Given that witness Seelye has acknowledged the 7 avoided cost components adopted by the Commission in the KPC case 2020-00174 (which along with job benefits comprise the "eight components" that are referenced in your testimony at p. 4 line 8, represent reasonable types of avoided costs that could be considered, is there any empirical basis in past Commission Orders for your assertion that "[t]he possibility of adding greater and greater amounts of cost is unlimited. This is a fundamental flaw that cannot be cured." If so, please provide any such evidence.

#### A-5.

- 1. Mr. Conroy's testimony makes no such assertion.
- 2. No.
- 3. Yes, judicial review is a check on the Commission's authority and its exercise thereof. But a better approach for all involved would be to limit net metering compensation components only to genuinely avoidable costs of utility service that are within the Commission's jurisdiction.
- 4. KRS 278.466(3) specifies that "the rate to be used for such compensation shall be set by the commission using the ratemaking processes under this chapter...."
- 5. Which legislation the Companies supported or opposed—or which legislation the Joint Intervenors supported or opposed—is irrelevant to these proceedings. Kentucky's Net Metering Statutes (KRS 278.465 et seq.) are the law. They, not the Companies' or the Joint Intervenors' legislative preferences, govern setting net metering compensation rates in these proceedings.
- 6. Yes.
- 7. The empirical evidence that gives rise to the Companies' concern is the creation of a "jobs benefit and economic development" net metering compensation component in the Kentucky Power Company proceeding (Case No. 2020-00174). The Commission has also requested testimony on "job benefits as they relate to calculating the NMS-2 export compensation rates" in these proceedings. As the Companies addressed in their post-hearing reply

## Response to Question No. 5 Page 3 of 3 Conroy

brief and Mr. Conroy explained in his supplemental testimony, such a compensation component is outside the Commission's jurisdiction to create or impose. That such a component is at issue in these proceedings is cause for concern and opens the door to the possibility of adding more compensation components that are beyond the Commission's statutory authority. Indeed, the witnesses for the Joint Intervenors have repeatedly invited the Commission to do just that in these proceedings.<sup>2</sup> Therefore, the concern expressed in Mr. Conroy's testimony is well founded.

 $^2$  See, e.g., Owen Supplemental Testimony at 7-8 (addressing the social cost of carbon); Rábago Supplemental Testimony at 5 (recommending including "Health Liability" in NMS-2 compensation).

Joint Intervenors' Second Supplemental Requests

Mountain Association, Kentuckians for the Commonwealth, Kentucky Solar Energy
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Dated July 22, 2021

Case No. 2020-00349 / Case No. 2020-00350

#### Question No. 6

Responding Witness: David S. Sinclair

Q-6.

- 1. What are the Companies' annual CO2 emissions from each and from all generating units and power supply sources, starting in 2019 and projected through 2050?
- 2. What were the total methane emissions associated with the Company's natural gas fuel supply (including leakage losses), from the wellhead, to the pipeline, to the final end-use at the power plant, in 2019 and 2020?
- 3. What are the Companies' annual nitrous oxide emissions from each and from all generating units and power supply sources, starting in 2020 and projected through 2050?
- 4. What were the Companies' total greenhouse gas emissions, in CO2-equivalents, including emissions of CO2, methane, and nitrous oxide, starting in 2019 and projected through 2050?
- 5. What were the Company's total annual market sales of energy (MWh) in 2017 2020 and what are the projected annual sales through 2050?
- 6. Please provide the range of carbon costs that the Companies' have used in the most recent IRP in making forecasts for meeting customer energy

A-6.

- 1. See attached.
- 2. The Companies do not have this information.
- 3. See attached.
- 4. See attached.

5. The table below contains actual market sales for 2017-2020 and projected market sales for 2021-2050.

Year	Market Sales (MWh)
2017	329,836
2018	669,497
2019	328,005
2020	174,421
2021	285,700
2022	206,200
2023	142,700
2024	176,000
2025	255,600
2026	263,400
2027	343,400
2028	396,500
2029	448,300
2030	481,300
2031	500,400
2032	485,800
2033	471,400
2034	579,800
2035	593,500
2036	607,900
2037	629,900
2038	698,500
2039	812,000
2040	864,200
2041	933,200
2042	980,300
2043	1,027,200
2044	997,900
2045	928,300
2046	890,300
2047	893,400
2048	887,800
2049	892,800
2050	890,500

6. See the response to Question No. 1(2a).

CO <sub>2</sub> Emissions per Unit by Year	Actı	uals									
(metric tons)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
EW Brown CT 10	23,037	13,112	15,906	7,373	25,516	36,907	29,091	19,917	22,873	16,381	6,350
EW Brown CT 11	13,822	5,602	4,906	3,750	6,471	7,232	5,651	9,042	9,320	9,793	3,745
EW Brown 3	929,810	1,244,674	1,091,920	1,002,451	1,197,322	1,142,221	1,076,994	925,533	861,437	0	0
EW Brown CT 5	63,669	18,766	94,801	42,594	150,525	114,826	112,776	181,542	137,351	118,924	50,821
EW Brown CT 6	110,433	42,632	61,445	66,457	46,157	52,767	43,896	63,978	74,577	76,396	48,141
EW Brown CT 7	45,254	29,503	31,987	39,937	35,084	36,028	33,696	47,657	58,889	51,311	37,738
EW Brown CT 8	8,606	7,484	10,338	4,974	7,091	12,008	6,364	10,811	13,280	20,025	3,219
EW Brown CT 9	33,584	14,301	19,617	7,352	8,275	17,908	14,957	17,193	30,380	22,849	7,414
Cane Run 7	1,916,594	1,704,607	2,041,555	2,084,421	2,115,086	1,834,179	2,130,680	2,087,207	2,133,308	1,830,738	2,106,735
CC1X1 01	0	0	0	0	0	0	0	0	0	1,313,207	1,336,519
CC1X1 02	0	0	0	0	0	0	0	0	0	0	0
CC1X1 03	0	0	0	0	0	0	0	0	0	0	0
CC1X1 04	0	0	0	0	0	0	0	0	0	0	0
CC1X1 05	0	0	0	0	0	0	0	0	0	0	0
CC1X1 06	0	0	0	0	0	0	0	0	0	0	0
CC1X1 07	0	0	0	0	0	0	0	0	0	0	0
CC1X1 08	0	0	0	0	0	0	0	0	0	0	0
Ghent 1	2,709,811	2,597,493	2,698,686	2,668,376	2,961,870	2,910,760	2,716,789	2,897,469	2,878,244	2,767,012	2,483,818
Ghent 2	2,413,253	2,317,247	2,968,442	2,878,292	2,965,474	2,633,551	2,882,658	2,844,678	2,504,482	2,807,374	2,701,062
Ghent 3	2,227,618	2,411,829	2,703,134	2,613,608	2,512,088	2,541,683	2,463,114	2,318,116	2,510,802	2,449,331	2,331,988
Ghent 4	2,468,928	2,241,623	2,505,478	2,312,053	2,384,651	2,181,741	2,396,748	2,199,562	2,241,013	1,876,559	2,066,333
Haefling	2	6	326	393	116	191	0	0	0	0	0
Mill Creek 1	1,421,383	1,570,402	1,999,002	2,167,096	1,975,147	2,296,468	0	0	0	0	0
Mill Creek 2	1,737,246	845,601	675,444	865,981	851,664	892,831	2,244,722	2,007,741	2,240,419	0	0
Mill Creek 3	1,779,679	1,695,676	2,404,117	2,876,372	2,509,705	3,070,496	2,815,899	3,088,781	2,571,016	3,011,448	2,761,525
Mill Creek 4	2,986,100	2,234,733	3,291,344	2,875,366	3,289,799	3,221,863	3,523,630	3,314,500	3,559,663	3,178,898	3,446,386
Paddys Run CT 11	63	27	98	112	112	248	0	0	0	0	0
Paddys Run CT 12	422	33	433	122	244	413	0	0	0	0	0
Paddys Run CT 13	37,662	20,014	49,665	36,310	21,384	22,349	15,084	16,023	48,226	54,921	41,036
Trimble County CT 5	173,612	110,218	178,945	253,982	178,296	215,926	251,283	321,008	275,982	228,913	244,353
Trimble County CT 6	57,642	20,382	199,476	196,884	123,672	147,551	179,239	221,532	136,381	217,607	182,465
Trimble County CT 7	100,420	59,453	145,157	152,577	116,666	94,277	120,467	161,855	158,540	173,045	140,667
Trimble County CT 8	44,702	46,698	29,140	33,345	20,625	19,235	16,479	26,143	36,186	38,305	16,691
Trimble County CT 9	89,264	82,622	104,364	117,540	82,593	70,548	70,330	125,329	94,395	129,940	95,271
Trimble County CT 10	45,235	10,998	13,484	17,222	11,627	15,513	10,316	11,272	21,170	20,872	9,661
Trimble County 1	2,067,638	2,327,360	2,453,731	2,740,995	2,603,807	2,737,497	2,399,990	2,785,223	2,668,085	2,783,485	2,635,716
Trimble County 2	3,036,064	3,193,755	2,918,332	2,793,286	2,568,053	2,876,719	2,916,116	2,610,825	2,880,503	2,875,622	2,815,415
Zorn 1	42	14	94	0	0	0	0	0	0	0	0

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CO <sub>2</sub> Emissions per Unit by Year		Projected Based upon Modeled Demand in July 2021											
(metric tons)	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040		
EW Brown CT 10	4,509	5,072	5,487	5,299	1,766	5,954	4,351	6,810	9,266	7,351	5,875		
EW Brown CT 11	1,838	2,445	2,314	3,718	1,167	1,095	1,137	2,539	4,556	5,527	4,516		
EW Brown 3	0	0	0	0	0	0	0	0	0	0	0		
EW Brown CT 5	33,436	25,360	20,179	19,633	10,285	13,524	20,094	15,651	16,710	12,524	18,249		
EW Brown CT 6	51,123	39,525	43,108	55,378	38,430	57,584	45,919	44,424	40,241	39,037	48,679		
EW Brown CT 7	38,070	24,287	29,221	37,344	27,918	38,272	37,964	31,591	30,542	25,740	31,799		
EW Brown CT 8	6,135	2,172	2,921	5,898	3,552	9,607	8,792	8,089	12,735	9,571	8,486		
EW Brown CT 9	6,679	5,776	5,992	11,339	2,894	9,594	8,009	7,427	11,283	10,327	8,816		
Cane Run 7	2,072,006	2,029,856	1,916,089	2,005,440	2,075,909	1,784,357	2,054,119	2,029,208	2,040,521	1,935,396	1,906,649		
CC1X1 01	1,216,156	1,174,917	1,208,425	1,214,358	1,257,729	1,342,495	1,329,256	1,286,220	1,265,080	1,234,348	1,222,184		
CC1X1 02	0	0	0	0	852,414	1,321,907	1,274,396	1,219,502	1,264,386	1,226,322	1,222,734		
CC1X1 03	0	0	0	0	780,775	1,187,166	1,103,834	1,129,740	1,253,455	1,220,370	1,216,493		
CC1X1 04	0	0	0	0	0	0	0	741,314	1,148,545	1,152,153	1,214,092		
CC1X1 05	0	0	0	0	0	0	0	568,812	903,217	1,063,363	1,181,200		
CC1X1 06	0	0	0	0	0	0	0	0	0	691,191	1,066,250		
CC1X1 07	0	0	0	0	0	0	0	0	0	574,228	847,277		
CC1X1 08	0	0	0	0	0	0	0	0	0	0	0		
Ghent 1	2,694,486	2,823,660	2,799,533	2,826,513	834,379	0	0	0	0	0	0		
Ghent 2	2,609,043	2,748,012	2,803,960	2,713,179	981,196	0	0	0	0	0	0		
Ghent 3	2,252,717	2,485,391	2,361,519	2,415,899	2,350,762	2,268,674	2,207,166	831,987	0	0	0		
Ghent 4	2,160,494	2,204,678	2,174,488	2,200,086	2,029,428	1,960,463	1,853,114	644,446	0	0	0		
Haefling	0	0	0	0	0	0	0	0	0	0	0		
Mill Creek 1	0	0	0	0	0	0	0	0	0	0	0		
Mill Creek 2	0	0	0	0	0	0	0	0	0	0	0		
Mill Creek 3	2,982,495	2,812,212	2,982,914	2,800,838	2,741,679	2,345,997	2,617,379	2,312,565	2,241,581	808,039	0		
Mill Creek 4	3,065,230	3,502,374	3,344,745	3,516,510	3,034,029	3,126,048	2,918,496	2,815,983	2,426,618	934,197	0		
Paddys Run CT 11	0	0	0	0	0	0	0	0	0	0	0		
Paddys Run CT 12	0	0	0	0	0	0	0	0	0	0	0		
Paddys Run CT 13	44,088	37,351	43,710	53,037	36,272	50,234	40,504	47,914	38,007	37,519	40,105		
Trimble County CT 5	255,095	198,136	212,894	222,153	206,763	238,225	185,812	195,802	168,125	158,848	160,045		
Trimble County CT 6	206,434	157,518	158,402	177,516	152,337	189,589	144,129	157,419	131,395	126,803	131,105		
Trimble County CT 7	154,589	113,505	139,692	137,186	115,414	141,475	116,267	119,406	101,257	106,469	101,335		
Trimble County CT 8	23,395	16,185	18,982	20,072	14,360	19,669	20,019	18,638	14,424	17,530	17,633		
Trimble County CT 9	115,977	89,230	106,675	100,414	81,540	94,867	80,849	87,031	67,729	77,436	81,816		
Trimble County CT 10	13,680	9,684	12,615	11,830	9,895	9,849	10,033	9,165	10,430	10,680	10,409		
Trimble County 1	2,783,539	2,552,308	2,748,375	2,330,531	2,669,574	2,466,891	2,612,785	2,373,120	2,161,236	1,992,765	2,011,567		
Trimble County 2	2,843,170	2,845,403	2,852,025	2,869,086	2,485,843	2,726,300	2,678,210	2,541,995	2,427,623	2,302,066	2,188,236		
Zorn 1	0	0	0	0	0	0	0	0	0	0	0		

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CO <sub>2</sub> Emissions per Unit by Year										
(metric tons)	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
EW Brown CT 10	2,979	1,673	2,509	3,164	5,961	11,486	8,838	5,140	9,475	8,459
EW Brown CT 11	2,156	1,635	1,277	1,377	4,532	7,766	6,191	6,707	4,094	5,656
EW Brown 3	0	0	0	0	0	0	0	0	0	0
EW Brown CT 5	6,819	7,554	5,785	9,096	21,972	16,886	22,729	22,693	20,973	16,511
EW Brown CT 6	30,965	24,369	26,370	33,452	46,324	44,040	50,646	51,165	59,778	51,097
EW Brown CT 7	19,409	17,362	15,640	18,518	35,201	32,003	36,557	38,569	44,067	36,361
EW Brown CT 8	5,549	3,438	2,929	3,749	16,244	14,381	13,885	12,137	14,384	13,032
EW Brown CT 9	3,827	3,575	5,219	3,921	11,926	10,457	14,666	11,887	13,135	11,051
Cane Run 7	1,885,474	1,917,763	1,871,377	1,650,592	1,893,810	1,924,058	1,896,558	1,914,597	1,902,536	1,941,824
CC1X1 01	1,203,147	1,197,528	1,206,314	1,210,136	1,209,647	1,216,658	1,223,391	1,228,395	1,217,125	1,211,348
CC1X1 02	1,204,375	1,209,438	1,201,166	1,194,328	1,205,764	1,212,071	1,216,237	1,218,366	1,217,258	1,221,806
CC1X1 03	1,210,185	1,205,159	1,207,001	1,204,284	1,210,217	1,209,823	1,220,428	1,223,423	1,220,982	1,214,706
CC1X1 04	1,198,483	1,196,953	1,199,916	1,190,062	1,207,412	1,213,099	1,217,009	1,219,318	1,222,586	1,210,296
CC1X1 05	1,172,384	1,162,156	1,198,657	1,180,589	1,201,870	1,210,710	1,213,706	1,218,388	1,206,872	1,212,607
CC1X1 06	1,092,627	1,076,677	1,089,342	1,141,085	1,163,679	1,149,278	1,186,441	1,172,745	1,186,773	1,169,688
CC1X1 07	895,101	889,163	911,159	997,593	992,764	1,034,523	1,024,504	1,011,160	1,025,083	1,019,417
CC1X1 08	480,665	624,155	619,697	716,815	713,430	808,685	776,041	735,124	720,460	775,547
Ghent 1	0	0	0	0	0	0	0	0	0	0
Ghent 2	0	0	0	0	0	0	0	0	0	0
Ghent 3	0	0	0	0	0	0	0	0	0	0
Ghent 4	0	0	0	0	0	0	0	0	0	0
Haefling	0	0	0	0	0	0	0	0	0	0
Mill Creek 1	0	0	0	0	0	0	0	0	0	0
Mill Creek 2	0	0	0	0	0	0	0	0	0	0
Mill Creek 3	0	0	0	0	0	0	0	0	0	0
Mill Creek 4	0	0	0	0	0	0	0	0	0	0
Paddys Run CT 11	0	0	0	0	0	0	0	0	0	0
Paddys Run CT 12	0	0	0	0	0	0	0	0	0	0
Paddys Run CT 13	28,484	20,695	20,863	22,733	37 <i>,</i> 556	39,422	43,351	49,265	52,108	46,587
Trimble County CT 5	129,519	105,977	99,294	104,871	137,212	164,205	158,071	164,969	175,372	169,695
Trimble County CT 6	103,553	81,355	81,288	85,768	107,314	131,778	136,096	135,630	140,919	130,956
Trimble County CT 7	74,595	60,435	64,024	66,218	92,125	103,432	106,676	108,656	115,983	106,777
Trimble County CT 8	8,533	8,965	9,487	12,459	18,562	16,509	21,530	20,813	19,589	19,411
Trimble County CT 9	55,955	42,518	44,072	55,589	74,857	78,952	81,801	74,369	91,013	81,656
Trimble County CT 10	6,031	5,111	5,655	6,584	9,991	10,884	13,162	12,963	12,027	12,562
Trimble County 1	1,690,804	1,677,234	1,597,265	1,696,639	680,604	0	0	0	0	0
Trimble County 2	1,890,059	1,701,073	1,924,272	1,869,442	1,713,520	1,786,723	1,762,206	1,862,182	1,834,739	1,801,974
Zorn 1	0	0	0	0	0	0	0	0	0	0

N₂O Emissions per Unit by Year	Act	uals												Proj	ected	Based	upon	Mode	eled De	mand	in July	2021	
(metric tons)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
EW Brown CT 10	0.04	0.02	0.03	0.01	0.04	0.06	0.05	0.03	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.02	0.01	0.01	0.00
EW Brown CT 11	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00
EW Brown 3	1.13	1.34	17.00	0.98	1.16	1.11	1.05	0.90	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EW Brown CT 5	0.12	0.03	0.16	0.07	0.25	0.19	0.19	0.30	0.23	0.20	0.08	0.06	0.04	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.02	0.03	0.01
EW Brown CT 6	0.20	0.08	0.10	0.11	0.08	0.09	0.07	0.10	0.12	0.13	0.08	0.08	0.06	0.07	0.09	0.06	0.09	0.07	0.07	0.07	0.06	0.08	0.05
EW Brown CT 7	0.08	0.05	0.05	0.07	0.06	0.06	0.06	0.08	0.10	0.08	0.06	0.06	0.04	0.05	0.06	0.05	0.06	0.06	0.05	0.05	0.04	0.05	0.03
EW Brown CT 8	0.02	0.01	0.02	0.01	0.01	0.02	0.01	0.02	0.02	0.03	0.01	0.01	0.00	0.00	0.01	0.01	0.02	0.01	0.01	0.02	0.02	0.01	0.01
EW Brown CT 9	0.06	0.03	0.03	0.01	0.01	0.03	0.02	0.03	0.05	0.04	0.01	0.01	0.01	0.01	0.02	0.00	0.02	0.01	0.01	0.02	0.02	0.01	0.01
Cane Run 7	3.55	3.16	3.45	3.53	3.58	3.10	3.60	3.53	3.61	3.10	3.56	3.51	3.43	3.24	3.39	3.51	3.02	3.48	3.43	3.45	3.27	3.22	3.19
CC1X1 01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.24	2.28	2.07	2.00	2.05	2.06	2.14	2.29	2.26	2.19	2.16	2.10	2.08	2.05
CC1X1 02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	2.25	2.17	2.07	2.15	2.09	2.08	2.05
CC1X1 03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.33	2.02	1.87	1.92	2.13	2.08	2.07	2.06
CC1X1 04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.26	1.95	1.96	2.07	2.04
CC1X1 05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.22	22.58	26.58	29.53	29.31
CC1X1 06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CC1X1 07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97	1.43	1.51
CC1X1 08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81
Ghent 1	2.91	2.79	42.05	2.60	2.88	2.83	2.65	2.82	2.80	2.69	2.42	2.62	2.75	2.73	2.75	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ghent 2	2.59	2.49	46.26	2.80	2.89	2.56	2.81	2.77	2.44	2.73	2.63	2.54	2.68	2.73	2.64	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ghent 3	2.39	2.59	42.08	2.54	2.44	2.47	2.40	2.26	2.44	2.38	2.27	2.19	2.42	2.30	2.35	2.29	2.21	2.15	0.81	0.00	0.00	0.00	0.00
Ghent 4	2.65	2.41	38.99	2.25	2.32	2.12	2.33	2.14	2.18	1.82	2.01	2.10	2.14	2.11	2.14	1.97	1.90	1.80	0.63	0.00	0.00	0.00	0.00
Haefling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mill Creek 1	1.53	1.69	31.13	2.11	1.92	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mill Creek 2	1.87	0.91	10.52	0.84	0.83	0.87	2.19	1.95	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mill Creek 3	1.92	1.83	37.32	2.79	2.44	2.98	2.73	3.00	2.50	2.92	2.68	2.90	2.73	2.90	2.72	2.66	2.28	2.54	2.24	2.17	0.78	0.00	0.00
Mill Creek 4	3.21	2.41	51.14	2.79	3.19	3.13	3.42	3.22	3.46	3.09	3.35	2.98	3.40	3.25	3.42	2.95	3.04	2.83	2.73	2.35	0.91	0.00	0.00
Paddys Run CT 11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paddys Run CT 12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paddys Run CT 13	0.07	0.04	0.08	0.06	0.04	0.04	0.03	0.03	0.08	0.09	0.07	0.07	0.06	0.07	0.09	0.06	0.08	0.07	0.08	0.06	0.06	0.07	0.05
Trimble County CT 5	0.32	0.20	0.30	0.42	0.30	0.36	0.42	0.53	0.46	0.38	0.41	0.42	0.33	0.35	0.37	0.34	0.40	0.31	0.33	0.28	0.26	0.27	0.22
Trimble County CT 6	0.11	0.04	0.33	0.33	0.21	0.25	0.30	0.37	0.23	0.36	0.30	0.34	0.26	0.26	0.30	0.25	0.32	0.24	0.26	0.22	0.21	0.22	0.17
Trimble County CT 7	0.19	0.11	0.24	0.25	0.19	0.16	0.20	0.27	0.26	0.29	0.23	0.26	0.19	0.23	0.23	0.19	0.24	0.19	0.20	0.17	0.18	0.17	0.12
Trimble County CT 8	0.08	0.09	0.05	0.06	0.03	0.03	0.03	0.04	0.06	0.06	0.03	0.04	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.02	0.03	0.03	0.01
Trimble County CT 9	0.17	0.15	0.17	0.20	0.14	0.12	0.12	0.21	0.16	0.22	0.16	0.19	0.15	0.18	0.17	0.14	0.16	0.13	0.14	0.11	0.13	0.14	0.09
Trimble County CT 10	0.08	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01
Trimble County 1	2.22	2.50	38.19	2.67	2.53	2.66	2.33	2.71	2.60	2.71	2.56	2.71	2.48	2.67	2.27	2.60	2.40	2.54	2.31	2.10	1.94	1.95	1.64
Trimble County 2	3.19	3.36	45.21	2.70	2.49	2.78	2.82	2.53	2.79	2.78	2.72	2.75	2.75	2.76	2.78	2.41	2.64	2.59	2.46	2.34	2.22	2.11	1.81
Zorn 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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Case Nos. 2020-00349 and 2020-00350

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 6(3)

N <sub>2</sub> O Emissions per Unit by Year									
(metric tons)	2042	2043	2044	2045	2046	2047	2048	2049	2050
EW Brown CT 10	0.00	0.00	0.01	0.01	0.02	0.01	0.01	0.02	0.01
EW Brown CT 11	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
EW Brown 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EW Brown CT 5	0.01	0.01	0.02	0.04	0.03	0.04	0.04	0.03	0.03
EW Brown CT 6	0.04	0.04	0.05	0.08	0.07	0.08	0.08	0.10	0.08
EW Brown CT 7	0.03	0.03	0.03	0.06	0.05	0.06	0.06	0.07	0.06
EW Brown CT 8	0.01	0.00	0.01	0.03	0.02	0.02	0.02	0.02	0.02
EW Brown CT 9	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
Cane Run 7	3.24	3.17	2.79	3.20	3.25	3.21	3.24	3.22	3.28
CC1X1 01	2.04	2.06	2.06	2.06	2.07	2.08	2.09	2.07	2.06
CC1X1 02	2.06	2.05	2.03	2.05	2.06	2.07	2.08	2.07	2.08
CC1X1 03	2.05	2.06	2.05	2.06	2.06	2.08	2.08	2.08	2.07
CC1X1 04	2.04	2.04	2.03	2.06	2.07	2.07	2.08	2.08	2.06
CC1X1 05	29.05	29.97	29.51	30.05	30.27	30.34	30.46	30.17	30.32
CC1X1 06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CC1X1 07	1.51	1.54	1.69	1.68	1.75	1.74	1.71	1.74	1.73
CC1X1 08	1.05	1.04	1.20	1.20	1.36	1.31	1.24	1.21	1.30
Ghent 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ghent 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ghent 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ghent 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Haefling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mill Creek 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mill Creek 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mill Creek 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mill Creek 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paddys Run CT 11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paddys Run CT 12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paddys Run CT 13	0.03	0.03	0.04	0.06	0.07	0.07	0.08	0.09	0.08
Trimble County CT 5	0.18	0.16	0.17	0.23	0.27	0.26	0.27	0.29	0.28
Trimble County CT 6	0.14	0.14	0.14	0.18	0.22	0.23	0.23	0.23	0.22
Trimble County CT 7	0.10	0.11	0.11	0.15	0.17	0.18	0.18	0.19	0.18
Trimble County CT 8	0.01	0.02	0.02	0.03	0.03	0.04	0.03	0.03	0.03
Trimble County CT 9	0.07	0.07	0.09	0.12	0.13	0.14	0.12	0.15	0.14
Trimble County CT 10	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
Trimble County 1	1.63	1.55	1.64	0.66	0.00	0.00	0.00	0.00	0.00
Trimble County 2	1.63	1.85	1.79	1.63	1.71	1.68	1.78	1.76	1.73
Zorn 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Case Nos. 2020-00349 and 2020-00350

Sinclair

#### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 6(4) Page 1 of 1 Actual

	ī	Attacn
Year	Total CO2e	
2019	26,558,445	Actual
2020	24,882,403	Actual
2021	28,902,032	
2022	28,875,787	
2023	28,785,596	
2024	29,220,543	
2025	28,493,323	
2026	28,329,310	
2027	28,182,788	
2028	26,088,535	
2029	25,588,388	
2030	25,649,701	
2031	25,920,397	
2032	26,009,649	
2033	25,768,574	
2034	22,810,687	
2035	21,423,806	
2036	21,386,574	
2037	18,690,772	
2038	16,897,777	
2039	14,727,094	
2040	13,574,321	
2041	13,239,172	
2042	13,089,639	
2043	13,221,812	
2044	13,308,379	
2045	12,620,327	
2046	12,246,732	
2047	12,246,600	
2048	12,309,892	
2049	12,330,093	
2050	12,286,045	

Joint Intervenors' Second Supplemental Requests

Mountain Association, Kentuckians for the Commonwealth, Kentucky Solar Energy
Society and Metropolitan Housing Coalition's Request for Information
Dated July 22, 2021

Case No. 2020-00349 / Case No. 2020-00350

#### Question No. 7

Responding Witness: Robert M. Conroy / David S. Sinclair

Q-7. On p.28 of his testimony (p.70 pdf), Mr. Seelye states:

"As explained in Mr. Sinclair's testimony, currently there are no laws or regulations that put a price on CO2 emissions. If a price is placed on CO2 emissions in the future, then an avoided cost could be included in a future filing. Also as explained in Mr. Sinclair's testimony, avoided environmental compliance costs are fully accounted for in the avoided energy and capacity cost components."

- 1. Is it yours and the Companies' testimony that if and when a price is placed on CO2 emissions, the Companies will promptly apply to the Commission to adjust the NMS compensation rates to ensure that customer-generators are fairly compensated for the value they provide by reducing those emissions?
- 2. Are the Companies proposing to adjust their NMS rates on an ongoing basis to account for changes in CO2 pricing?
- 3. Please provide all data, documents, and analysis to show how all environmental compliance costs are included within the Companies' proposed SQF and LQF tariffs.
- 4. Please provide all internal planning documents and analysis related to potential future regulations, costs, and liabilities for the Companies related to: coal ash management and disposal; coal ash ponds; NOx, SOx, and Mercury emissions; carbon emissions; air quality; water quality; and public health in communities impacted by these environmental impacts.

A-7.

1. No, just as the Companies do not apply to the Commission to change other non-mechanism rates as soon as any other single input cost or market condition changes.

- 2. When the Companies seek to change their NMS-2 compensation rates, they will include avoided carbon cost, to the extent there are any, in their analysis in accordance with the Commission's recent orders.
- 3. See Supplemental Exhibit DSS-1 and Supplemental Exhibit DSS-2. The Companies' avoided energy costs reflect the impact of replacing coal with natural gas and include the cost of consumables such as limestone, ammonia, and emission allowances for complying with existing environmental regulations. Avoided capacity cost is computed as the lesser of two avoided capacity cost estimates: one based on the current market price of the QF and one based on the levelized cost of CT.
- 4. The analysis summarized in Mr. Bellar's Direct Testimony, Exhibit LEB-2, evaluated the early retirements of Mill Creek Unit 1 and Mill Creek Unit 2 in the context of the existing and a potentially more stringent NAAQS for ozone. This risk was also evaluated in Mr. Wilson's Direct Testimony, Exhibit SAW-1, in Case No. 2020-00060.<sup>3</sup> Two CO<sub>2</sub> price scenarios were evaluated in the 2018 IRP. In addition, in Exhibit SAW-1 in Case No. 2020-00060, the Companies compared the cost of ELG compliance to the cost of complying early with a range of potential CO<sub>2</sub> regulations.

The Companies are closing all ash ponds to comply with the CCR Rule. Due to coal retirements nationally, the supply of fly ash and other coal combustion residuals ("CCR") has been reduced such that the Companies are able to sell the majority of their CCR into beneficial reuse markets. As a result, the Companies do not currently forecast a need for additional landfill capacity for CCRs. Future resource decisions will likely not impact the cost of complying with new regulations pertaining to coal ash management. All of the Companies' coal units are equipped with scrubbers to comply with regulations pertaining to  $SO_x$  emissions. The Companies are presently complying with the EPA's amended Effluent Limit Guidelines.

The Companies would note that air quality, water quality, and public health per se are externalities to the Companies' cost of service. To the extent governmental bodies that do have jurisdiction over those issues create laws, regulations, or costs that apply to the Companies, the Companies include those costs in their planning processes, and those costs would be included in avoided cost calculations for NMS-2.

Finally, it is important to recognize that whatever the "potential future regulations, costs, and liabilities" might be regarding the issues addressed in

<sup>&</sup>lt;sup>3</sup> Available at https://psc.ky.gov/pscecf/2020-00060/andrea.fackler%40lge-ku.com/03312020124413/6\_-\_KU\_Testimony\_and\_Exhibits\_2020\_ECR\_Plan.pdf.

Response to Question No. 7
Page 3 of 3
Conroy / Sinclair

this request, they will be equally well avoided by utility-scale solar (or other renewable resources) as by net-metering-scale generators. There is nothing unique or special about rooftop solar in this regard: a kWh of energy delivered to the Companies' grid by a rooftop solar facility is *identical* with regard to its impact on all the items addressed in this request as is a kWh delivered to the Companies' grid by a utility-scale solar facility (after adjusting for line loss differences, if any).

Joint Intervenors' Second Supplemental Requests

Mountain Association, Kentuckians for the Commonwealth, Kentucky Solar Energy
Society and Metropolitan Housing Coalition's Request for Information
Dated July 22, 2021

Case No. 2020-00349 / Case No. 2020-00350

#### Question No. 8

Responding Witness: Eileen L. Saunders / William Steven Seelye

Q-8. On p.22 of his Supplemental Testimony (p.65 pdf), Mr. Seelye states:

"With customer-generators there is no assurance that their solar facilities will be in place over a sufficiently long period of time to allow the Companies to avoid or defer generation capacity. In order to allow the Companies to avoid generation capacity, KU and LG&E must have some assurance that any capacity provided by a customer-generator would be in place and operational over a period of time of 20 years or more."

- 1. Please provide all data indicating the number of net metering customergenerators who have closed their accounts since the Companies began offering NM service in 2004. What percent of all Company NM customers have closed their accounts? Of these customer-generators who have closed their accounts, how many of the NM generators ceased operation and how many were transferred to new owners and continued operation? What percentage of all generators that have begun service under NMS-I have ceased operation?
- 2. Please provide the total number of kilowatt-hour credits remaining in the accounts of NM customers who have closed their accounts.
- 3. Over the years the Companies have provided DSM incentives to customers which have encouraged conservation, through programs that have incentivized the purchase of Energy Star appliances and HVAC systems, for example. These programs have been judged cost effective by the Commission based on a useful life of the equipment which is measured in years. Are the companies arguing that customers may be trusted to operate their refrigerators for their useful life but not their solar PV systems?

- 1-2. The Companies do not maintain the data in the manner requested. Customer account data and kWh values surrendered (total number of kilowatt-hour credits remaining in the accounts of NM customers who have closed their accounts) are available from March 2009 forward. See attachment being provided in Excel format. It should be noted that 64% of all net metering customers served by the Companies have been connected less than three years. Therefore, there is insufficient longitudinal data available to draw any conclusions regarding how long customer-generators will keep the solar or other generating facilities in place.
  - 3. No, the Companies have made no such argument or assertion. Also, the programs to which the request refers are not part of the current DSM-EE Program Plan, which took effect on January 1, 2019.

But even assuming that all customer-generators kept their generators in place and well-functioning for the long-term, the *most* they should be compensated for energy delivered to the grid is the price of an equivalent product, e.g., 20-year level pricing for a solar PPA, adjusted for avoided transmission and distribution capacity costs and line losses, if any. As the Companies have noted, their recent solar PPA has a 20-year level price of \$0.02782/kWh with liquidated damages if the facility fails to meet guaranteed availability, and the Companies will receive all renewable energy certificates ("RECs") from the facility's production. Notably, no NMS-2 customers are being asked to make such guarantees, agree to liquidated damages provisions, or give the Companies the RECs from their generators' production, so compensating NMS-2 customers at solar PPA rates with the adjustments noted above would likely overcompensate customer-generators relative to market prices.

# The attachment is being provided in a separate file in Excel format.

Joint Intervenors' Second Supplemental Requests

Mountain Association, Kentuckians for the Commonwealth, Kentucky Solar Energy
Society and Metropolitan Housing Coalition's Request for Information
Dated July 22, 2021

Case No. 2020-00349 / Case No. 2020-00350

#### Question No. 9

Responding Witness: David S. Sinclair

- Q-9. On p.25 of his Supplemental Testimony (p. 67 pdf), Mr. Seelye states: "Furthermore, considering that the Companies' system loads are projected to decrease over the next ten years, the Companies' existing transmission infrastructure should generally be adequate to serve future loads on the system."
  - 1. Please provide all load forecasts and supporting data and documents to justify the statement that the Companies' system loads are projected to decrease over the next ten years.
  - 2. Please provide all analysis the Company has performed, with supporting documents, to estimate the impact electric vehicles will have on the Companies' load over the next 25 years. Include all sensitivity analyses performed to assess the impact of varying levels of EV market penetration on the Companies' load.
  - 3. One important component for transitioning to a zero-carbon economy is the electrification of most or all energy end-uses (such as transportation, space heating, water heating, industrial processes, etc.), coupled with the transition to 100 percent noncarbon-emitting electrical generation. Please provide all analysis the Company has performed, with supporting documents, to assess the impact wide-scale electrification may have on the Companies' load and capacity requirements over the next 25 years. Include all sensitivity analyses performed to assess the impact of varying rates of electrification on the Companies' load.

A-9.

1. The table below contains forecasted energy requirements per the 2021 BP. Energy requirements decrease slightly through 2030.

#### Forecasted Total System Energy Requirements (2021 BP; GWh)

Year	Energy Requirements
2021	31,546
2022	31,805
2023	31,773
2024	31,768
2025	31,632
2026	31,538
2027	31,430
2028	31,362
2029	31,201
2030	31,054

- 2. See Section 5.4 in Volume I of the 2018 IRP beginning on page 5-14 and continuing on page 5-30 through 5-32. Figure 5-18 shows 3 scenarios that were considered in the 2018 IRP. Additionally, Section 4 at page 12 of the November 2017 PPL Climate Assessment Report discusses the potential impact of EVs on electricity sales and demands (<a href="https://www.pplweb.com/wp-content/uploads/2017/12/PPL-Corporation-Climate-Assessment-Report.pdf">https://www.pplweb.com/wp-content/uploads/2017/12/PPL-Corporation-Climate-Assessment-Report.pdf</a>). See the responses to PSC 7-21 and PSC 7-25.
- 3. This will be discussed in the Companies' 2021 IRP.

Joint Intervenors' Second Supplemental Requests

Mountain Association, Kentuckians for the Commonwealth, Kentucky Solar Energy
Society and Metropolitan Housing Coalition's Request for Information
Dated July 22, 2021

Case No. 2020-00349 / Case No. 2020-00350

#### Question No. 10

Responding Witness: Elizabeth J. McFarland / David S. Sinclair / John K. Wolfe

- Q-10. Please provide the following information:
  - 1. Load data (watt-hour and peak watt) at the distribution system level at minimum 1-hour increments (preferably 15-minute increments) and broken out by rate class, for each of the past five years.
  - 2. Detailed transmission system capacity and usage information. Data describing each transmission line capacity, each load and generation asset connected to that line, and RTO/ISO interconnection points. Provide all reports and documentation pertaining to the condition of the transmission system.
  - 3. A list of all current generation assets. For each plant include fuel type, nameplate capacity, construction date, planned end of operation date, outstanding debt, non-fuel variable costs, fuel costs, and hourly (or preferably 15 minute) capacity factor.
  - 4. Demand forecasts for the overall system and each distribution system.
  - 5. All data, analysis and documentation pertaining to the condition and capacity of the Companies' distribution infrastructure.

#### A-10.

- 1. See attachment being provided in Excel format. The Companies prepare historical load profiles only to support rate cases. The attached file contains load profiles for July 2015 through June 2016 and May 2017 through April 2018. See attachment to AG-KIUC 1-181b Att 3 for load profiles used in the 2020 case.
- 2. The transmission information being requested is Confidential Energy Infrastructure Information (CEII). Following execution of a confidentiality

agreement, LG&E and KU will provide a transmission planning model and the 2021 annual Transmission Expansion Plan that includes the requested information. The request to provide all reports and documentation pertaining to the condition of the transmission system is unduly vague and overly burdensome. However, the Transmission System Improvement Plan ("TSIP") and subsequent annual updates as filed with the Commission will provide a condition assessment of the transmission system. Links to the Companies' TSIP Annual Reports are below:

## LG&E

2021: https://psc.ky.gov/pscecf/2016-00371/rick.lovekamp@lge-ku.com/06012021112143/Closed/2-2021 TSIP Annual Report.pdf

2020: https://psc.ky.gov/pscecf/2016-00371/rick.lovekamp@lge-ku.com/06012020020132/Closed/2-2020 TSIP Annual Report.pdf

2019: https://psc.ky.gov/pscecf/2016-00371/derek.rahn@lge-ku.com/06042019014058/Closed/2 - TSIP\_Annual\_Report\_Final.pdf

2018: https://psc.ky.gov/pscecf/2016-00371/derek.rahn@lge-ku.com/06012018111656/Closed/2 - TSIP Annual Report Final.pdf

## KU

2021: https://psc.ky.gov/pscecf/2016-00370/rick.lovekamp@lge-ku.com/06012021112026/Closed/2-2021\_TSIP\_Annual\_Report.pdf

2020: https://psc.ky.gov/pscecf/2016-00370/rick.lovekamp@lge-ku.com/06012020015717/Closed/2-2020 TSIP Annual Report.pdf

2019: https://psc.ky.gov/pscecf/2016-00370/derek.rahn@lge-ku.com/06042019013736/Closed/2 - TSIP Annual Report Final.pdf

2018: https://psc.ky.gov/pscecf/2016-00370/derek.rahn@lge-ku.com/06012018110928/Closed/2\_-\_TSIP\_Annual\_Report\_Final.pdf

3. See the responses to AG 1-117, AG 1-126, and PSC 7-29 and the table below. Note that Paddy's Run 11 was retired on March 31, 2021. The planning retirement assumptions shown in the table below for Mill Creek Units 1 and 2 and Brown Unit 3 reflect the assumptions and scenarios described in Section 1 on page 1 of Mr. Sinclair's Supplemental Exhibit DSS-2. The Companies do not assign debt to specific assets.

## Response to Question No. 10 Page 3 of 4 McFarland / Sinclair / Wolfe

Plant	Unit	Operation	Planning Retirement
Flam	Unit	Date	Assumption
Cane Run	7	2015	2055
Dix Dam	1-3	1925	2041
E.W. Brown	3	1971	2028 or 2035
E.W. Brown	5	2001	2041
E.W. Brown	6	1999	2039
E.W. Brown	7	1999	2039
E.W. Brown	8	1995	2035
E.W. Brown	9	1994	2034
E.W. Brown	10	1995	2035
E.W. Brown	11	1996	2036
Ghent	1	1974	2034
Ghent	2	1977	2034
Ghent	3	1981	2037
Ghent	4	1984	2037
Haefling	1-2	1970	2025
Mill Creek	1	1972	2024
Mill Creek	2	1974	2028 or 2034
Mill Creek	3	1978	2039
Mill Creek	4	1982	2039
Ohio Falls	1-8	1928	2045
Paddy's Run	12	1968	2025
Paddy's Run	13	2001	2041
Trimble County	1	1990	2045
Trimble County	2	2011	2066
Trimble County	5	2002	2042
Trimble County	6	2002	2042
Trimble County	7	2004	2042
Trimble County	8	2004	2044
Trimble County	9	2004	2044
Trimble County	10	2004	2044
Zorn	1	1969	2021

4. See table below, which shows forecasted peaks for the total company and each company individually for the next 10 years.

## Forecasted Demands (MW)

Year	<b>Total System</b>	KU (incl. ODP)	LG&E
2021	6,111	3,846	2,633
2022	6,139	3,888	2,719
2023	6,130	3,886	2,630
2024	6,123	3,891	2,623
2025	6,109	3,868	2,623
2026	6,095	3,857	2,627
2027	6,080	3,845	2,645
2028	6,058	3,848	2,617
2029	6,047	3,819	2,619
2030	6,033	3,804	2,613

- 5. This request is unduly vague and overly burdensome. New data about the condition and capacity of the distribution system becomes available moment by moment, making it impossible to provide *all* such data. That notwithstanding, the Companies respond as follows:
  - See the responses to parts 1 and 4 above.
  - See Exhibit JKW-1 to the Direct Testimony of John K. Wolfe, which is the Companies' 2021-2025 Distribution Reliability and Resiliency Plan. This plan outlines the capital investments being made to distribution system specifically addressing the distribution infrastructure.
  - See the hourly loading of the Companies' distribution infrastructure for calendar years 2017-2019, which was provided in KU's response to PSC 5-18 and in LG&E's response to PSC 5-19.
  - See the attached non-coincidental forecast for the Companies through 2033.
  - See the attached KU 2021 Electric Distribution Utility Annual Reliability Report filed with the Commission
  - See the attached LG&E 2021 Electric Distribution Utility Annual Reliability Report filed with the Commission

# The attachments are being provided in separate files in Excel format.

## KENTUCKY PUBLIC SERVICE COMMISSION

#### **ELECTRIC DISTRIBUTION UTILITY ANNUAL RELIABILITY REPORT**

SECTION 1: CONTACT INF	ORMATION
------------------------	----------

UTILITY NAME KENTUCKY UTILITIES COMPANY
REPORT PREPARD BY Steve Woodworth (Dir. System Ops & Planning)

E-MAIL ADDRESS OF PREPARER steve.woodworth@lge-ku.com

PHONE NUMBER OF PREPARER (502) 627-3828

### **SECTION 2: REPORTING YEAR**

CALENDAR YEAR OF REPORT 2020

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

T<sub>MED</sub> 3.941

FIRST DATE USED TO DETERMINE T<sub>MED</sub> 1/1/2015

LAST DATE USED TO DETERMINE T<sub>MED</sub> 12/31/2019

NUMBER OF MED IN REPORTING YEAR 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 RELIABILTIY INFORMATION AND RESULTS**

## **System-wide Information**

TOTAL CUSTOMERS 546,042 TOTAL CIRCUITS 1,113

## **Excluding MED**

	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	84.64	SAIDI	58.70
SAIFI	0.777	SAIFI	0.588

### **Including MED**

5 YEAR AVERAGE			REPORTING YEAR
SAIDI	157.74	SAIDI	77.46
SAIFI	0.899	SAIFI	0.678

#### 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<sub>MFD</sub>

## **SECTION 5: CIRCUIT REPORTING**

**BEGIN ON NEXT PAGE** 

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 2 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LEXINGTON PLANT
-----	----------------------------	-----------------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 745 N Limestone - Lexington

3.) CIRCUIT NAME AND NUMBER 0001

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - N. Broadway - SW of Station

5.) TOTAL CIRCUIT LENGTH (MILES) 3.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 525

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/21/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 5.8%

Trees- 0.0%

Utility Equipment- 1.0%

Vehicle- 93.2%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 50.55

10.) 2020 SAIDI 168.59

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.67

12.) 2020 SAIFI 1.85

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 3 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	LEXINGTON PLANT
----	----------------------------	-----------------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 745 N Limestone - Lexington

3.) CIRCUIT NAME AND NUMBER 0003

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - N. Upper St. and 6th St. - W of Station

5.) TOTAL CIRCUIT LENGTH (MILES) 4.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 978

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/21/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 1.5%

Overload- 0.0%

Planned Work- 16.6%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 81.9%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	21.10

10.) 2020 SAIDI 65.35

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.16

12.) 2020 SAIFI 0.42

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 4 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	LEXINGTON PLANT
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 745 N Limestone - Lexington

3.) CIRCUIT NAME AND NUMBER 0006

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - N. Limestone St. SW of Station

5.) TOTAL CIRCUIT LENGTH (MILES) 2.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 377

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/05/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.3%

Trees- 0.1%

Utility Equipment- 0.3%

Vehicle- 99.3%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 117.86

10.) 2020 SAIDI 413.90

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.78

12.) 2020 SAIFI 1.09

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 5 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LEXINGTON PLANT
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 745 N Limestone - Lexington

3.) CIRCUIT NAME AND NUMBER 0007

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - N. Limestone St and York St. - NE amd SE of Station

5.) TOTAL CIRCUIT LENGTH (MILES) 6.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,206

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/05/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 3.9%

Overload- 0.0%

Planned Work- 4.5%

Trees- 32.6%

Utility Equipment- 1.7%

Vehicle- 57.3%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	15.50

10.) 2020 SAIDI 35.18

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.21

12.) 2020 SAIFI 0.50

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 6 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	RACE STREET 4KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 420 Corral St - Lexington

3.) CIRCUIT NAME AND NUMBER 0014

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Race St. and E Third St. and Chestnut Street - N of Station

5.) TOTAL CIRCUIT LENGTH (MILES) 5.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 919

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/08/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 3.7%

Overload- 0.0%

Planned Work- 32.6%

Trees- 44.7%

Utility Equipment- 7.0%

Vehicle- 12.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	13.13

10.) 2020 SAIDI 14.15

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.09

12.) 2020 SAIFI 0.10

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 7 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	LEXINGTON WATER COMPANY 4KV
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Fayette - 2300 Richmond Rd Lexington
3.) CIRCUIT NAME AND NUMBER	0016
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Lexington - Fontaine Rd - W of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	3.6
6.) CUSTOMER COUNT FOR THIS CIRCUIT	699
7.) DATE OF LAST CIRCUIT TRIM (VM)	09/12/2020
8.) 2020 OUTAGES BY CAUSE	
Animal-	- 0.0%
Construction-	- 0.0%
Lightning-	- 39.2%
Non-Company-	- 0.0%
Other/Unknown-	- 0.0%
Overload-	- 0.0%
Planned Work-	- 60.8%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	31.10
10.) <b>2020 SAIDI</b>	25.83
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.16
12.) 2020 SAIFI	0.17

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 8 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	SCOTT STREET
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Fayette - 301 Scott St Lexington
3.) CIRCUIT NAME AND NUMBER	0018
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Lexington - Limestone St SE of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	3.3
6.) CUSTOMER COUNT FOR THIS CIRCUIT	780
7.) DATE OF LAST CIRCUIT TRIM (VM)	07/20/2019
8.) 2020 OUTAGES BY CAUSE	
Animal-	0.0%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	8.1%
Overload-	0.0%
Planned Work-	80.1%
Trees-	7.5%
Utility Equipment-	4.3%

9.)	<b>CIRCUIT 5 YEAR AVERAGE</b>	SAIDI)	17.32
٠.,	01110011 0 12/111/11211/102 (	o, <b>o</b> .,	±7.00

Vehicle- 0.0%

10.) **2020 SAIDI** 8.70

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.17

12.) 2020 SAIFI 0.29

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 9 of 360

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1.) SUBSTATION NAME AND NUMBER	KUNKEL
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Fayette - 2000 Versailles Rd Lexington
3.) CIRCUIT NAME AND NUMBER	0019
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Lexington - Versailles Rd NE of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	2.0
6.) CUSTOMER COUNT FOR THIS CIRCUIT	173
7.) DATE OF LAST CIRCUIT TRIM (VM)	03/28/2020
8.) 2020 OUTAGES BY CAUSE	
Animal-	0.0%
Construction-	0.0%
Lightning- 0.0%	
Non-Company-	0.0%
Other/Unknown-	0.0%
Overload-	0.0%

Planned Work- 60.3%

Trees- 39.7%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	24.19
10.) 2020 SAIDI	12.99
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.22
12 ) 2020 SAIFI	0.29

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

Trees Trimmed in 2020

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 10 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	HIGBY MILL 12KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 308 Waveland Museum Ln. - Lexington

3.) CIRCUIT NAME AND NUMBER 0023

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Nicholasville Rd - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 56.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,708

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/27/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 3.1%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 7.1%

Other/Unknown- 19.2%

Overload- 0.0%

Planned Work- 17.6%

Trees- 21.0%

Utility Equipment- 31.9%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	91.50
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	91.

10.) **2020 SAIDI** 78.91

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.98

12.) 2020 SAIFI 1.90

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 11 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER KUNK
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 2000 Versailles Rd. - Lexington

3.) CIRCUIT NAME AND NUMBER 0026

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Duntreath Dr. & Pine Mt. Rd. - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.7

6.) **CUSTOMER COUNT FOR THIS CIRCUIT** 570

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/28/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 5.8%

Trees- 91.4%

Utility Equipment- 2.8%

Vehicle- 0.0%

9.	) CIRCUIT 5 YEAR AVERAGE (SAIDI)	74.92
J.	I CINCOLL S LEAN AVENAGE (SAID)	1

10.) 2020 SAIDI 229.45

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.34

12.) 2020 SAIFI 1.11

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

Trees Trimmed in 2020

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 12 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	RACE STREET 4KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 420 Corral St - Lexington

3.) CIRCUIT NAME AND NUMBER 0030

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Midland Ave. & Winchester Rd. - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 854

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/08/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 7.0%

Trees- 0.0%

Utility Equipment- 7.5%

Vehicle- 85.4%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 45.90

10.) 2020 SAIDI 48.54

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.73

12.) 2020 SAIFI 0.96

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 13 of 360

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		Wolfe

1.) SUBSTATION NAME AND NUMBER	RACE STREET 4KV	
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Fayette - 420 Corral St - Lexington	
3.) CIRCUIT NAME AND NUMBER	0031	
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Lexington - Corral St. & MLK Blvd NE of Substation	
5.) TOTAL CIRCUIT LENGTH (MILES)	2.8	
6.) CUSTOMER COUNT FOR THIS CIRCUIT	502	
7.) DATE OF LAST CIRCUIT TRIM (VM)	12/08/2018	
8.) 2020 OUTAGES BY CAUSE		
Animal- 0.0%		
Construction- 0.0%		
Lightning- 0.0%		
Non-Company- 0.0%		
Other/Unknown- 1.8%		
Overload	- 84.4%	

Planned Work- 13.8% Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	14.99
10.) 2020 SAIDI	19.58
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.30
12.) 2020 SAIFI	0.17

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 14 of 360

1 )	SUBSTATION NAME AND NUMBER	G E LAMP WORKS

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 1809 Edision Dr - Lexington

3.) CIRCUIT NAME AND NUMBER 0032

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Edision Dr. - Rosemont Garden

5.) TOTAL CIRCUIT LENGTH (MILES) 2.1

6.) **CUSTOMER COUNT FOR THIS CIRCUIT** 279

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/09/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 9.4%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown-82.0%

Overload- 0.0%

Planned Work- 5.8%

Trees- 0.0%

Utility Equipment- 2.8%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	11.37

10.) 2020 SAIDI 16.39

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.17

12.) 2020 SAIFI 0.23

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 15 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	HUGHES LANE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 251 Hughes Ln. - Lexington

3.) CIRCUIT NAME AND NUMBER 0037

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Mir Station Rd. & US 27 - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 138.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,098

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/25/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.5%

Construction- 0.0%

Lightning- 0.1%

Non-Company- 1.3%

Other/Unknown- 2.8%

Overload- 0.0%

Planned Work- 1.5%

Trees- 27.6%

Utility Equipment- 2.8%

Vehicle- 63.6%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	) 242.35
J.	I CINCUIT S TEAN AVENAGE (SAIDI)	1 242.33

10.) 2020 SAIDI 338.86

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.63

12.) 2020 SAIFI 3.18

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

Trees Trimmed in 2020

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 16 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	LEXINGTON WATER COMPANY 12KV
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Fayette - 2300 Richmond Rd Lexington
3.) CIRCUIT NAME AND NUMBER	0039
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Lexington - St. Phillip Dr. & Richmond Rd E of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	13.9
6.) CUSTOMER COUNT FOR THIS CIRCUIT	2,044
7.) DATE OF LAST CIRCUIT TRIM (VM)	01/04/2020
8.) 2020 OUTAGES BY CAUSE	
Animal	- 0.5%
Construction-	- 0.0%
Lightning-	- 0.0%
Non-Company-	0.0%
Other/Unknown-	· 0.1%
Overload-	- 0.0%
Planned Work-	1.0%
Trees-	- 59.9%
Utility Equipment-	38.5%
Vehicle-	- 0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	42.09
10.) <b>2020 SAIDI</b>	82.09
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.43
12.) <b>2020 SAIFI</b>	0.37

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

Trees Trimmed in 2020

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 17 of 360 Wolfe

1.	SUBSTATION NAME AND NUMBER	REYNOLDS
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 200 W. Reynold Rd. - Lexington

3.) CIRCUIT NAME AND NUMBER 0040

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Reynolds Rd. - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 12.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,094

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/31/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 2.7%

Construction- 0.0%

Lightning- 10.4%

Non-Company- 0.0%

Other/Unknown- 6.9%

Overload- 0.0%

Planned Work- 2.1%

Trees- 68.8%

Utility Equipment- 9.2%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (</b>	(SAIDI)	9.27

10.) 2020 SAIDI 14.10

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.07

12.) 2020 SAIFI 0.12

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10

		Page 18 of 360
		Wolfe
) SUBSTATION NAME AND NUMBER	VILEY ROAD	

1.	SUBSTATION NAME AND NUMBER	VILEY ROAD

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 308 Alexandria Rd. - Lexington

3.) **CIRCUIT NAME AND NUMBER** 0041

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Leestown Rd. & Adams Ln. - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 63.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,113

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/21/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.2%

Non-Company- 0.0%

Other/Unknown- 12.0%

Overload- 0.0%

Planned Work- 8.8%

Trees- 16.4%

Utility Equipment- 61.9%

Vehicle- 0.7%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	I) 99.41

10.) <b>2020 SAIDI</b>	146.01	
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.88	

0.52

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

Continue to Monitor

12.) 2020 SAIFI

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 19 of 360 Wolfe

1.) SUBSTATION NAME AND NUMBER	HALEY
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 5481 Winchester Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0046

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Winchester & Haley Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 45.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 389

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/31/2015

8.) 2020 OUTAGES BY CAUSE

Animal- 0.7%

Construction- 0.0%

Lightning- 5.5%

Non-Company- 0.0%

Other/Unknown- 40.4%

Overload- 0.0%

Planned Work- 2.2%

Trees- 48.0%

Utility Equipment- 3.2%

Vehicle- 0.0%

10.) **2020 SAIDI** 137.82

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.24

12.) 2020 SAIFI 2.05

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

Tree Trim Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 20 of 360

Wolfe

1.) SUBSTATION	N NAME AND NUMBER	ASHLAND AVENUE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 448 S Ashland Ave. - Lexington

3.) CIRCUIT NAME AND NUMBER 0048

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Tates Creek Rd. - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 6.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 538

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/18/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 6.1%

Other/Unknown- 6.1%

Overload- 0.0%

Planned Work- 17.2%

Trees- 16.4%

Utility Equipment- 1.5%

Vehicle- 52.7%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	49.2
ر. ر	CINCOLL 2 LEAN AVENAGE (SAID)	·)

10.) 2020 SAIDI 105.29

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.50

12.) 2020 SAIFI 1.49

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 21 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	AMERICAN AVENUE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 96 Burley Ave. - Lexington

3.) CIRCUIT NAME AND NUMBER 0052

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Waller Ave. & St. Joseph Dr. - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 88

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/20/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 100.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	1.08

10.) 2020 SAIDI 3.86

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.02

12.) 2020 SAIFI 0.09

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 22 of 360

Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 1555 Baunmann Dr - Lexington

3.) CIRCUIT NAME AND NUMBER 0055

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Fairman Rd & Leestown Rd - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 17.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,271

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/20/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 35.1%

Construction- 32.5%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 8.8%

Overload- 0.0%

Planned Work- 0.4%

Trees- 9.6%

Utility Equipment- 7.3%

Vehicle- 6.3%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	52.70
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	52.

10.) 2020 SAIDI 48.88

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.46

12.) 2020 SAIFI 0.49

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 23 of 360 Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 1555 Baunmann Dr - Lexington

3.) CIRCUIT NAME AND NUMBER 0060

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Mercer Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 12.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 420

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/10/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.5%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 15.3%

Overload- 0.0%

Planned Work- 6.4%

Trees- 0.1%

Utility Equipment- 77.7%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	70.6	57	
ر.ر	CINCUIT 3 TEAN AVENAGE (SAIDI)	, 0.	١	υ,

10.) 2020 SAIDI 78.48

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.20

12.) 2020 SAIFI 1.46

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 24 of 360

Wolfe

	Wolle
1.) SUBSTATION NAME AND NUMBER	PICADOME 12KV
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Fayette - 1620 Harrodsburg Rd - Lexington
3.) CIRCUIT NAME AND NUMBER	0062
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Lexington - Mason Headley Rd - NW of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	4.0
6.) CUSTOMER COUNT FOR THIS CIRCUIT	291
7.) DATE OF LAST CIRCUIT TRIM (VM)	04/11/2020
8.) 2020 OUTAGES BY CAUSE	
Animal	4.5%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	83.1%
Overload-	0.0%
Planned Work-	0.0%
Trees-	6.8%
Utility Equipment-	5.7%
Vehicle-	0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	61.35
40 \	52.42

10.) **2020 SAIDI** 52.13

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.74

12.) **2020 SAIFI** 1.04

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 25 of 360

Wolfe

1 )	SUBSTATION NAME AND NUMBER	PROCTOR & GAMBLE
1.1	SUBSTATION NAIVE AND NUIVIDER	PROUTUR & GAIVIBLE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 120 Zesta PI - Lexington

3.) CIRCUIT NAME AND NUMBER 0066

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Zesta PI - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 5

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/19/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 28.0%

Overload- 0.0%

Planned Work- 72.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	121.07
◡.	CINCOLL S LEAN AVENAGE (SAID)	1

10.) 2020 SAIDI 32.80

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.49

12.) 2020 SAIFI 0.80

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 26 of 360

Wolfe

1 )	SUBSTATION NAME AND NUMBER	PROCTOR & GAMBLE
1.1	SUBSTATION NAIVE AND NUIVIDER	PROUTUR & GAIVIBLE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 120 Zesta PI - Lexington

3.) CIRCUIT NAME AND NUMBER 0068

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Delware Rd - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 3.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 379

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/19/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.1%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 13.3%

Overload- 0.0%

Planned Work- 1.7%

Trees- 79.4%

Utility Equipment- 5.4%

Vehicle- 0.0%

9.	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	42.83
٦.,	CIRCUIT 5 TEAR AVERAGE (SAIDI	42.0

10.) **2020 SAIDI** 42.69

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.28

12.) 2020 SAIFI 0.35

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 27 of 360

Wolfe

	Wolfe
1.) SUBSTATION NAME AND NUMBER	WILSON DOWNING
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Fayette - 680 Wilson Downing Rd - Lexington
3.) CIRCUIT NAME AND NUMBER	0072
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Lexington - Tates Creek Rd & Trent Blvd - NE of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	8.3
6.) CUSTOMER COUNT FOR THIS CIRCUIT	1,369
7.) DATE OF LAST CIRCUIT TRIM (VM)	02/16/2019
8.) 2020 OUTAGES BY CAUSE	
Anima	l- 4.0%
Construction	1- 0.0%
Lightning	g- 0.2%
Non-Company	<i>r</i> - 0.0%
Other/Unknown	1- 5.4%
Overload	I- 0.0%
Planned Worl	- 1.9%
Trees	S- 87.0%
Utility Equipmen	:- 1.5%
Vehicle	2- 0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	24.80
10.) 2020 SAIDI	39.54

,,	
10.) <b>2020 SAIDI</b>	39.54
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.44

0.29

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

Continue to Monitor

12.) 2020 SAIFI

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 28 of 360

1 \	SUBSTATION NAME AND NUMBER	
1.1	SUBSTATION NAIVIE AND NUIVIBER	LOUDON AVENUE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 811 E Loudon Ave - Lexington

3.) CIRCUIT NAME AND NUMBER 0075

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Floyd Dr - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 11.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,288

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/16/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 1.9%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.6%

Overload- 0.0%

Planned Work- 0.7%

Trees- 0.6%

Utility Equipment- 96.2%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI	55.77

10.) **2020 SAIDI** 263.46

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.26

12.) 2020 SAIFI 1.17

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 29 of 360

Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 141 Trafton St - Lexington

3.) CIRCUIT NAME AND NUMBER 0078

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Versailles Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 498

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/22/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 12.1%

Overload- 0.0%

Planned Work- 16.4%

Trees- 2.0%

Utility Equipment- 0.7%

Vehicle- 68.9%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	9.70

10.) 2020 SAIDI 26.00

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.08

12.) 2020 SAIFI 0.18

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 30 of 360

1.)	SUBSTATION NAME AND NUMBER	TRAFTON AVENUE 12KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 141 Trafton St - Lexington

3.) CIRCUIT NAME AND NUMBER 0079

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Red Mile Rd - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 7.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,192

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/25/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.3%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.7%

Trees- 98.9%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAID	1) 28.92
ر. ر	CINCUIT S TEAN AVENAGE (SAID	1) 20.3

10.) 2020 SAIDI 62.95

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.38

12.) 2020 SAIFI 1.01

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

Trees Trimmed in 2020

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 31 of 360

<b>1 1</b> 7	_1	£.
W	OI	Te

1.) SUBSTATION NAME AND NUMBER	PICADOME 4KV
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Fayette - 1620 Harrodsburg Rd - Lexington
3.) CIRCUIT NAME AND NUMBER	0080
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Lexington - Lafayette Pky - S of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	7.2
6.) CUSTOMER COUNT FOR THIS CIRCUIT	852
7.) DATE OF LAST CIRCUIT TRIM (VM)	12/28/2019
8.) 2020 OUTAGES BY CAUSE	
Animal-	0.4%
Construction-	1.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	0.1%
Overload-	0.0%
Planned Work-	3.0%
Trees-	95.2%
Utility Equipment-	0.3%
Vehicle-	0.0%
9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	75.15
10.) <b>2020 SAIDI</b>	162.32
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.22
12.) 2020 SAIFI	1.15

 $13.) \;\; \mbox{LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN}$ 

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 32 of 360

1 )	SUBSTATION NAME AND NUMBER	TRAFTON AVENUE 12KV
1.1	SUBSTATION NAIVIE AND INDIVIDER	I KAFIUN AVENUE IZKV

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 141 Trafton St - Lexington

3.) CIRCUIT NAME AND NUMBER 0088

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Dunkirk Dr - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 9.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,655

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/13/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 2.5%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 17.3%

Overload- 0.0%

Planned Work- 6.0%

Trees- 36.4%

Utility Equipment- 37.9%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	) 24.5	7	
5.1	CIRCUIT 5 TEAR AVERAGE (SAID)	1 24	)	)/

10.) 2020 SAIDI 40.59

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.37

12.) 2020 SAIFI 1.10

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

Trees Trimmed in 2020

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 33 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	HAEFLING
_⊥.,	30631ATION NAIVIE AND NOIVIDER	HAEFL

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 1555 Baunmann Dr - Lexington

3.) CIRCUIT NAME AND NUMBER 0089

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Baumann Dr - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 3

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/10/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 100.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 143.66

10.) 2020 SAIDI 558.23

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40

12.) 2020 SAIFI 0.67

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 34 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	AMERICAN AVENUE
----	----------------------------	-----------------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 96 Burley Ave. - Lexington

3.) CIRCUIT NAME AND NUMBER 0090

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Stanley Ave. & Waller Ave. - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 1.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 220

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/20/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 2.1%

Trees- 97.9%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	14.47
J. CINCOIL S LEAN AVENAGE (SAIDI)	±

10.) 2020 SAIDI 25.01

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.11

12.) 2020 SAIFI 0.23

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 35 of 360

Wa	lfρ	

1.)	SUBSTATION NAME AND NUMBER	LIBERTY ROAD
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 2125 Liberty Rd. - Lexington

3.) CIRCUIT NAME AND NUMBER 0092

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - New Circule Rd. & Winchester Rd. - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 19.0

6.) **CUSTOMER COUNT FOR THIS CIRCUIT** 1,379

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/20/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 1.7%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 14.2%

Overload- 0.0%

Planned Work- 0.4%

Trees- 0.0%

Utility Equipment- 83.7%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	oi) 35.19	)

10.) 2020 SAIDI 111.93

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.58

12.) 2020 SAIFI 1.63

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 36 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	STONEWALL

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 3060 Arrowhead Dr - Lexington

3.) CIRCUIT NAME AND NUMBER 0096

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - New Circle Rd & Southview Dr - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 13.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,295

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/16/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.4%

Construction- 0.2%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 13.2%

Overload- 0.0%

Planned Work- 2.8%

Trees- 83.1%

Utility Equipment- 0.2%

Vehicle- 0.0%

9.	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	133.50
J.	CINCOLL S LEAN AVENAGE (SAIDI	1 133.30

10.) 2020 SAIDI 365.47

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.00

12.) 2020 SAIFI 2.42

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

Tree Trim Scheduled for 2021

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 37 of 360

Wolfe

1.) SUBSTAT	ION NAME AND NUMBER	STONEWALL
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 3060 Arrowhead Dr - Lexington

3.) CIRCUIT NAME AND NUMBER 0098

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Chelsea Dr & Clays Mill Dr - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 476

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/31/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 9.4%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 72.2%

Overload- 0.0%

Planned Work- 6.3%

Trees- 11.7%

Utility Equipment- 0.4%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	1) 61.	21
ر. ر	CINCUIT 3 TEAN AVENAGE (SAID)	1) U1.	

10.) 2020 SAIDI 119.69

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.87

12.) 2020 SAIFI 1.35

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 38 of 360 Wolfe

1.	SUBSTATION NAME AND NUMBER	JOYLAND
----	----------------------------	---------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 2375 Paris Pike - Lexington

3.) CIRCUIT NAME AND NUMBER 0099

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - I-64 & I-75 - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 14.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 2,028

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/25/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 10.1%

Construction- 30.1%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.4%

Overload- 0.0%

Planned Work- 1.7%

Trees- 54.5%

Utility Equipment- 3.2%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI	143.91

10.) **2020 SAIDI** 69.27

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.44

12.) 2020 SAIFI 1.71

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

Trees Trimmed in 2020

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 39 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	STONEWALL

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 3060 Arrowhead Dr - Lexington

3.) CIRCUIT NAME AND NUMBER 0108

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Tomahawk Tr & Harrodsburg Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 362

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/25/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 4.4%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 94.1%

Overload- 0.0%

Planned Work- 1.4%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.	) CIRCUIT 5 YEAR AVERAGE (SAIDI)	) 43.	6	7
◡.	/ CINCOIL S LEAN AVENAGE (SAID)	1 <del>1</del> 3.	. •	,

10.) 2020 SAIDI 98.46

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40

12.) 2020 SAIFI 1.09

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 40 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	IBM
-----	----------------------------	-----

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 740 W New Circle Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0110

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Russell Cave Rd - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 22.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 2,033

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/23/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 6.1%

Construction- 0.2%

Lightning- 0.0%

Non-Company- 78.1%

Other/Unknown- 0.3%

Overload- 0.0%

Planned Work- 0.1%

Trees- 11.6%

Utility Equipment- 3.7%

Vehicle- 0.0%

10.) **2020 SAIDI** 26.82

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.67

12.) 2020 SAIFI 1.22

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 41 of 360 Wolfe

1 \	SUBSTATION NAME AND NUMBER	ASHLAND AVENUE
1.1	SUBSTATION NAIVE AND NUIVIBER	ASDI AND AVENUE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 448 S Ashland Ave. - Lexington

3.) CIRCUIT NAME AND NUMBER 0111

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Ashland Dr & Preston Ave. - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 973

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/21/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 31.2%

Overload- 0.0%

Planned Work- 12.3%

Trees- 19.3%

Utility Equipment- 7.7%

Vehicle- 29.4%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	) 46.09
ر. ر	CINCOLL S LEAN AVENAGE (SAID)	<b>1</b>

10.) 2020 SAIDI 59.55

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.61

12.) 2020 SAIFI 0.88

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 42 of 360

W	പ	lfΔ

1.	SUBSTATION NAME AND NUMBER	VILEY ROAD
	30031A110N NAME AND NOMBER	VILLING

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 308 Alexandria Rd. - Lexington

3.) CIRCUIT NAME AND NUMBER 0115

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Alexandria Rd & Leestown Rd - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 22

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/09/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 100.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	)I) 6	5.5	5	3
9.1	CIRCUIT 5 TEAR AVERAGE (SAIL	))) (		J.:	ວ.ວະ

10.) 2020 SAIDI 31.58

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.03

12.) 2020 SAIFI 0.09

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 43 of 360

Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 4601 Old Iron Works Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0117

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Lisle Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 7.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 471

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/06/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.1%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 99.2%

Overload- 0.0%

Planned Work- 0.1%

Trees- 0.0%

Utility Equipment- 0.6%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 31.15

10.) 2020 SAIDI 107.94

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.31

12.) 2020 SAIFI 1.08

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 44 of 360

Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 3200 Montavesta Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0118

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - New Circle Rd. & Chinoe Rd. - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 13.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,089

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/27/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.3%

Construction- 0.9%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 14.7%

Overload- 0.0%

Planned Work- 5.9%

Trees- 71.8%

Utility Equipment- 6.4%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	51.76
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10.) **2020 SAIDI** 95.46

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.62

12.) 2020 SAIFI 1.21

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

Trees Trimmed in 2020

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 45 of 360

1.)	SUBSTATION NAME AND NUMBER	FMC
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 2641 Palumbo Dr - Lexington

3.) CIRCUIT NAME AND NUMBER 0120

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Palumbo Dr & Man O War Blvd - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 7.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 274

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/23/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 98.9%

Overload- 0.0%

Planned Work- 0.0%

Trees- 1.1%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	21.46
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	۷.

10.) 2020 SAIDI 60.90

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.22

12.) 2020 SAIFI 0.51

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 46 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	FMC
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2.) **SUBSTATION LOCATION (COUNTY-ROAD-TOWN)** Fayette - 2641 Palumbo Dr - Lexington

3.) CIRCUIT NAME AND NUMBER 0123

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Palumbo Dr - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 363

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/23/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 5.5%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.5%

Overload- 0.0%

Planned Work- 1.3%

Trees- 0.0%

Utility Equipment- 92.7%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	18.93

10.) 2020 SAIDI 71.75

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.07

12.) 2020 SAIFI 0.20

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 47 of 360 Wolfe

1.) SUBSTATION NAME AND NUMBER	FMC
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) County - Road - Town

3.) CIRCUIT NAME AND NUMBER 0124

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Town - Road - General Area

5.) TOTAL CIRCUIT LENGTH (MILES) 0.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/10/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	69.34

10.) 2020 SAIDI 346.70

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.20

12.) 2020 SAIFI 1.00

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 48 of 360

Wolfe

1.) SUBSTATION NAIVIE AND NOTVIDER HIGH MILL 12	1.)	SUBSTATION NAME AND NUMBER	HIGBY MILL 12KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 308 Waveland Museum Ln - Lexington

3.) CIRCUIT NAME AND NUMBER 0128

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Wyndham Hills Dr - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 6.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 531

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/16/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 88.8%

Utility Equipment- 11.2%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	10.98
5.1	CIRCUIT 5 TEAR AVERAGE (SAID)	10.3

10.) 2020 SAIDI 48.30

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.51

12.) 2020 SAIFI 2.50

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 49 of 360

Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 1090 W. New Circle Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0129

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Georgtown Rd, Price Rd, & Main St - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 16.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,975

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/12/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.5%

Construction- 0.0%

Lightning- 2.7%

Non-Company- 0.0%

Other/Unknown- 16.1%

Overload- 0.0%

Planned Work- 2.8%

Trees- 52.8%

Utility Equipment- 0.0%

Vehicle- 25.1%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 49.60

10.) **2020 SAIDI** 42.86

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40

12.) 2020 SAIFI 0.52

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

Tree Trim Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 50 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	LEXINGTON WATER COMPANY 12KV

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 2300 Richmond Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0130

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Richmond Rd. - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 24.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 3,212

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/22/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 22.7%

Construction- 1.8%

Lightning- 0.4%

Non-Company- 0.0%

Other/Unknown- 18.6%

Overload- 0.0%

Planned Work- 20.6%

Trees- 5.3%

Utility Equipment- 30.6%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	31.	87
9.1	CIRCUIT 5 TEAR AVERAGE (SAID	/I) 31	

10.) **2020 SAIDI** 46.90

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.31

12.) 2020 SAIFI 0.41

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 51 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	LAKESHORE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 3710 Richmond Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0132

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Richmond Rd - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 59.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,109

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/19/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.2%

Construction- 0.2%

Lightning- 49.1%

Non-Company- 0.2%

Other/Unknown- 20.6%

Overload- 0.0%

Planned Work- 3.6%

Trees- 8.2%

Utility Equipment- 17.9%

Vehicle- 0.0%

10.) **2020 SAIDI** 52.87

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.12

12.) 2020 SAIFI 1.30

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 52 of 360

Wolfe

1.) S	SUBSTATION NAME AND NUMBER	LAKESHORE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 3710 Richmond Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0133

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Richmond Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 8.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,326

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/03/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 7.4%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 92.6%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) <b>CIRC</b> I	JIT 5 YEAR AVERAGE (SAIDI)	17.93
J.) CINC	JII 3 TEAN AVENAGE (JAIDI)	17.5

10.) **2020 SAIDI** 73.85

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.14

12.) 2020 SAIFI 0.53

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 53 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LAKESHORE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 3710 Richmond Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0134

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Richmond Rd & Yorkshire Blvd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 7.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,055

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/03/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 13.8%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 1.2%

Overload- 0.0%

Planned Work- 4.3%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 80.7%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	1) 8.4	1
ر. ر	CINCOLL 2 LEAN AVENAGE (SAID	i) 0. <del>7</del>	-

10.) 2020 SAIDI 23.92

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.17

12.) 2020 SAIFI 0.74

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 54 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	RACE STREET 12KV
1.,	3003 I A I I O I NAIVIL AND INDIVIDEN	NACE SINEEL 12NV

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 420 Corral St - Lexington

3.) CIRCUIT NAME AND NUMBER 0139

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Midland Ave., Mian St. & water St. - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 16

7.) DATE OF LAST CIRCUIT TRIM (VM) Underground Circuit

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 100.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	1) 25.6	55
٠.,	CINCOIL S LEAN AVENAGE (SAID	23.0	J

10.) 2020 SAIDI 89.43

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.33

12.) 2020 SAIFI 0.50

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 55 of 360 Wolfe

1.) SUBSTATION NAME AND NUMBER
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 740 W New Circle Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0140

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Newtown Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 26.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 944

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/30/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.1%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.7%

Overload- 0.0%

Planned Work- 3.4%

Trees- 0.0%

Utility Equipment- 62.3%

Vehicle- 33.4%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	55.66
9.1 CIRCUII 3 TEAR AVERAGE (SAIDI)	33.00

10.) **2020 SAIDI** 98.49

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.81

12.) 2020 SAIFI 2.17

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 56 of 360

1.) SUBSTATION NAME AND NUMBER CLA	AYS MILL
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 4454 Clays Mill Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0145

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Glenview Dr - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 30.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,907

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/03/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.6%

Construction- 0.0%

Lightning- 0.1%

Non-Company- 0.0%

Other/Unknown- 85.4%

Overload- 0.0%

Planned Work- 3.6%

Trees- 7.4%

Utility Equipment- 3.0%

Vehicle- 0.0%

9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	39.22

10.) **2020 SAIDI** 22.61

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.35

12.) 2020 SAIFI 0.43

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 57 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	CLAYS MILL
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Fayette - 4454 Clays Mill Rd - Lexington
3.) CIRCUIT NAME AND NUMBER	0146
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Lexington - Clays Mill Rd & Man O War Blvd - N of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	11.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 926

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/08/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 13.9%

Construction- 0.0%

Lightning- 10.4%

Non-Company- 0.0%

Other/Unknown- 5.6%

Overload- 0.0%

Planned Work- 1.8%

Trees- 43.0%

Utility Equipment- 25.4%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	82.88
10.) 2020 SAIDI	119.87
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.59
12.) 2020 SAIFI	0.54

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

Tree Trim Scheduled for 2021

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 58 of 360

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1.) SUBSTATION NAME AND NUMBER	CLAYS MILL

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 4454 Clays Mill Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0148

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Weber Way - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 10.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,099

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/21/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 55.1%

Construction- 0.0%

Lightning- 3.1%

Non-Company- 0.0%

Other/Unknown- 17.5%

Overload- 0.0%

Planned Work- 6.3%

Trees- 0.7%

Utility Equipment- 17.3%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	1) 24.8	87
5.1	CIRCUIT 5 TEAR AVERAGE (SAID	1) 24.0	

10.) 2020 SAIDI 43.60

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.26

12.) 2020 SAIFI 0.62

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 59 of 360

1.)	SUBSTATION NAME AND NUMBER	LAKESHORE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 3710 Richmond Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0152

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Richmond Rd - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 1.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 8

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/01/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 100.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (</b>	SAIDI)	21.65
٠.,	CINCOIL 3 ILAN AVENAGE (	ווטוחכ	

10.) 2020 SAIDI 49.75

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.10

12.) 2020 SAIFI 0.25

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10

Page	60 of 360
	Wolfe

	Wolfe
1.) SUBSTATION NAME AND NUMBER	STANFORD
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Lincoln - 746 KY Highway 78 - Stanford
3.) CIRCUIT NAME AND NUMBER	0155
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Stanford - KY Highway 78 & US Highway 27 - SE of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	18.1
6.) CUSTOMER COUNT FOR THIS CIRCUIT	297
7.) DATE OF LAST CIRCUIT TRIM (VM)	08/11/2018
8.) 2020 OUTAGES BY CAUSE	
Animal-	1.1%
Construction-	0.0%
Lightning-	1.3%
Non-Company-	0.0%
Other/Unknown-	0.9%
Overload-	0.0%
Planned Work-	2.7%
Trees-	86.3%
Utility Equipment-	7.7%
Vehicle-	0.0%
9 ) CIRCUIT 5 YEAR AVERAGE (SAIDI)	33 58

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 33.58

10.) **2020 SAIDI** 37.72 11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.26

0.17

12.) 2020 SAIFI

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 61 of 360

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	vv one
1.) SUBSTATION NAME AND NUMBER	PICADOME 4KV
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Fayette - 1620 Harrodsburg Rd - Lexington
3.) CIRCUIT NAME AND NUMBER	0158
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Lexington - St Joseph Dr - SE of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	2.2
6.) CUSTOMER COUNT FOR THIS CIRCUIT	458
7.) DATE OF LAST CIRCUIT TRIM (VM)	12/28/2019
8.) 2020 OUTAGES BY CAUSE	
Animal	- 0.0%
Construction	- 0.0%
Lightning	- 0.0%
Non-Company	- 0.0%
Other/Unknown	- 0.0%
Overload	- 0.0%
Planned Work	- 0.0%
Trees	- 98.3%
Utility Equipment	- 1.7%
Vehicle	- 0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	15.09
10.) 2020 SAIDI	26.51

 11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)
 0.12

 12.) 2020 SAIFI
 0.07

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 62 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	VILEY ROAD

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 308 Alexandria Rd. - Lexington

3.) CIRCUIT NAME AND NUMBER 0159

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Leestown Rd & Masterson Station - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 12.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,093

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/09/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 92.5%

Overload- 0.0%

Planned Work- 0.3%

Trees- 0.0%

Utility Equipment- 7.1%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	29.64
J. CINCOLL S LEAN AVENAGE (SAIDI)	23.0-

10.) **2020 SAIDI** 15.04

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.19

12.) 2020 SAIFI 0.20

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 63 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	DANVILLE 1 12KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Boyle - 494 S 4TH ST - Danville

3.) CIRCUIT NAME AND NUMBER 0162

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Danville - 4th St - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 13.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,275

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/07/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 5.6%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 65.4%

Other/Unknown- 0.0%

Overload- 1.8%

Planned Work- 22.6%

Trees- 4.6%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	32.97
ر. ر	CINCUIT 3 TEAN AVENAGE (SAID)	il 32.37

10.) **2020 SAIDI** 46.39

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.27

12.) 2020 SAIFI 0.45

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 64 of 360

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1.) SUBS1	ATION NAME AND NUMBER	DANVILLE WEST
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Boyle - 1353 Lebanon Rd - Danville

3.) CIRCUIT NAME AND NUMBER 0167

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Danville - Lebanaon Rd - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 6.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 23

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/11/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 32.8%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 67.2%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	) 24.5	2	
5.1	CIRCUIT 5 TEAR AVERAGE (SAIDI)	)	ر.	

10.) **2020 SAIDI** 56.30

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.31

12.) 2020 SAIFI 0.39

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 65 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	EASTLAND
-----	----------------------------	----------

2.) **SUBSTATION LOCATION (COUNTY-ROAD-TOWN)** Fayette - 1159 Industry Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0182

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Eastland Pky - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 17.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 2,256

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/24/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.3%

Construction- 0.0%

Lightning- 1.5%

Non-Company- 0.0%

Other/Unknown- 0.2%

Overload- 0.0%

Planned Work- 0.0%

Trees- 97.8%

Utility Equipment- 0.2%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	90.96
ر. ر	CIRCUIT 5 TEAR AVERAGE (SAIDI)	30.

10.) 2020 SAIDI 261.53

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.71

12.) 2020 SAIFI 1.11

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

Reliability Improvements Scheduled for 2021

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 66 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	ASHLAND AVENUE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Fayette - 448 S Ashland Ave Lexington
3.)	CIRCUIT NAME AND NUMBER	0187
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Lexington - High St NW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	3.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	853
7.)	DATE OF LAST CIRCUIT TRIM (VM)	12/21/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.6%
	Other/Unknown-	22.6%
	Overload-	0.0%
	Planned Work-	13.1%
	Trees-	4.3%
	Utility Equipment-	6.4%
	Vehicle-	53.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	26.89
10.)	2020 SAIDI	39.37
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.36
12.)	2020 SAIFI	0.24

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 67 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	HUME ROAD

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 2319 Hume Rd. - Lexington

3.) CIRCUIT NAME AND NUMBER 0193

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - 175, Man O' War Blvd, & Blackford Pkwy - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 6.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 531

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/17/2021

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 99.0%

Non-Company- 0.0%

Other/Unknown- 1.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	34.51
9.) CIRCUII 5 YEAR AVERAGE (SAIDI)	34.5

10.) 2020 SAIDI 8.63

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.89

12.) 2020 SAIFI 1.00

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 68 of 360

1.) SUBSTATION NAME AND NUMBER	HUME ROAD
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 2319 Hume Rd. - Lexington

3.) CIRCUIT NAME AND NUMBER 0194

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lexington - Winchester Rd, Sir Barton Way, Executive Dr, & Elkhorn Rd - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 8.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 314

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/17/2021

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 16.7%

Other/Unknown- 2.1%

Overload- 0.0%

Planned Work- 0.2%

Trees- 55.9%

Utility Equipment- 0.9%

Vehicle- 24.2%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 93.89

10.) **2020 SAIDI** 60.69

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.38

12.) 2020 SAIFI 1.08

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

Trees Trimmed in 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 69 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	LAKESHORE
_⊥.,	SUBSTATION NAIVIE AND NOIVIDER	LAKESH

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 3710 Richmond Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0195

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Hays Blvd & Chilesburg Rd - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 12.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 939

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/19/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 10.5%

Non-Company- 0.0%

Other/Unknown- 14.5%

Overload- 0.0%

Planned Work- 14.9%

Trees- 31.1%

Utility Equipment- 28.9%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	0.55
J.	CINCOLL S LEAN AVENAGE (SAID)	1

10.) 2020 SAIDI 1.47

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.01

12.) 2020 SAIFI 0.01

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 70 of 360

Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Laurel - Near corner of Foster Heights & Substation Rd - London

LONDON

3.) CIRCUIT NAME AND NUMBER 0203

1.) SUBSTATION NAME AND NUMBER

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) London - Locus St - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 1.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 96

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/31/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 59.6%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 1.5%

Overload- 0.0%

Planned Work- 4.2%

Trees- 0.0%

Utility Equipment- 34.8%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	11.60	
10.) <b>2020 SAIDI</b>	10.63	
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.18	

0.24

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

Continue to Monitor

12.) 2020 SAIFI

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 71 of 360 Wolfe

1.	SUBSTATION NAME AND NUMBER	LONDON 2

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Laurel - Near corner of Foster Heights & Substation Rd - London

3.) CIRCUIT NAME AND NUMBER 0205

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) London - S & N on McWhorter Rd

5.) TOTAL CIRCUIT LENGTH (MILES) 40.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,827

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/31/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 1.9%

Construction- 0.0%

Lightning- 3.5%

Non-Company- 0.0%

Other/Unknown- 22.2%

Overload- 0.0%

Planned Work- 3.6%

Trees- 54.1%

Utility Equipment- 13.3%

Vehicle- 1.4%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 94.61

10.) 2020 SAIDI 226.12

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.60

12.) 2020 SAIFI 4.64

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 72 of 360

1.)	SUBSTATION NAME AND NUMBER	CAMPBELLSVILLE 2
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Taylor - 620 Clem Haskins Blvd. - Campbellsville

3.) CIRCUIT NAME AND NUMBER 0208

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Campbellsville - Industrial Rd - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 1.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 11

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/31/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 90.4%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 9.6%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	35.3	9
ر. ر	CINCOLL 2 LEAN AVENAGE (SAID)	1	J

10.) 2020 SAIDI 167.89

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.27

12.) 2020 SAIFI 1.18

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 73 of 360

0.87

1.14

Wolfe

1.) SUBSTATION NAME AND NUMBER	COLUMBIA
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Taylor - 114 Lindsey Wilson St - Columbia
3.) CIRCUIT NAME AND NUMBER	0209
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Columbia - KY HWY 3491 & KY 55 - N of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	43.4
6.) CUSTOMER COUNT FOR THIS CIRCUIT	919
7.) DATE OF LAST CIRCUIT TRIM (VM)	03/30/2019
8.) 2020 OUTAGES BY CAUSE	
Animal-	1.3%
Construction-	0.0%
Lightning-	1.5%
Non-Company-	0.0%
Other/Unknown-	92.4%
Overload-	0.0%
Planned Work-	0.8%
Trees-	2.9%
Utility Equipment-	1.2%
Vehicle-	0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	74.12
10.) 2020 SAIDI	52.75

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 74 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER CAR
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Laurel - 1136 South Laurel Rd - London

3.) CIRCUIT NAME AND NUMBER 0213

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) London - S Laurel Rd - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 3.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 146

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/15/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 19.1%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 9.0%

Overload- 0.0%

Planned Work- 11.1%

Trees- 11.6%

Utility Equipment- 8.0%

Vehicle- 41.3%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI	182.69
J.	CINCOLL S LEAN AVENAGE (SAID)	102.0

10.) **2020 SAIDI** 127.56

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.58

12.) 2020 SAIFI 1.95

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 75 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	FARISTON

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Laurel - 57 Rocky Branch Rd - North Corbin

3.) CIRCUIT NAME AND NUMBER 0216

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) North Corbin - S Laurel Rd - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 3.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 90

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/26/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 1.6%

Overload- 0.0%

Planned Work- 6.8%

Trees- 90.7%

Utility Equipment- 0.9%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	OI) 46.38

10.) 2020 SAIDI 158.15

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.34

12.) 2020 SAIFI 1.17

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

### Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 76 of 360 Wolfe

		Wolfe
1.)	SUBSTATION NAME AND NUMBER	WILLIAMSBURG SOUTH
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Whitley - Corner of Savoy Clear Creek Rd and Railroad Tracks East of I75 - Williamsburg
3.)	CIRCUIT NAME AND NUMBER	0226
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Williamsburg - Highway 25 - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	34.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,283
7.)	DATE OF LAST CIRCUIT TRIM (VM)	01/22/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	3.9%
	Non-Company-	0.2%
	Other/Unknown-	8.1%
	Overload-	0.0%
	Planned Work-	0.8%
	Trees-	84.3%
	Utility Equipment-	2.6%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	113.73
10.)	2020 SAIDI	116.31
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.77
12.)	2020 SAIFI	0.65

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

### Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 77 of 360

0.65

Wolfe

		Wolfe
1.)	SUBSTATION NAME AND NUMBER	WILLIAMSBURG SOUTH
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Whitley - Corner of Savoy Clear Creek Rd and Railroad Tracks East of I75 - Williamsburg
3.)	CIRCUIT NAME AND NUMBER	0227
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Williamsburg - Savoy Clear Creek Rd - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	5.4
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	68
7.)	DATE OF LAST CIRCUIT TRIM (VM)	12/31/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	3.5%
	Non-Company-	0.0%
	Other/Unknown-	4.5%
	Overload-	0.0%
	Planned Work-	0.1%
	Trees-	91.4%
	Utility Equipment-	0.4%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	119.60
10.)	2020 SAIDI	209.18
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.68

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

Continue to Monitor

12.) 2020 SAIFI

### Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 78 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	WILLIAMSBURG SOUTH
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Whitley - Corner of Savoy Clear Creek Rd and Railroad Tracks East of 175 - Williamsburg

3.) CIRCUIT NAME AND NUMBER 0230

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Williamsburg - Highway 92 - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 25.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 653

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/29/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 19.9%

Overload- 0.0%

Planned Work- 0.7%

Trees- 53.9%

Utility Equipment- 25.4%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 208.52

10.) 2020 SAIDI 717.61

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.45

12.) 2020 SAIFI 0.84

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 79 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	WILLIAMSBURG
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Whitley - Corner of 2nd and 3rd St - Williamsburg

3.) CIRCUIT NAME AND NUMBER 0235

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Williamsburg - 5th St - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 3.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 274

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/31/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 6.6%

Overload- 0.0%

Planned Work- 32.7%

Trees- 58.6%

Utility Equipment- 2.1%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	14.6
5.1	CIRCUII 3 TEAR AVERAGE (SAIDI	i) 14.V

10.) 2020 SAIDI 65.95

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.07

12.) 2020 SAIFI 0.23

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 80 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	MANCHESTER
-----	----------------------------	------------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clay - 1195 HWY 687 (Town Branch Rd) - Manchester

3.) CIRCUIT NAME AND NUMBER 0250

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Manchester - Town Branch Rd - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 24.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,054

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/29/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.1%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 20.2%

Other/Unknown- 1.3%

Overload- 0.0%

Planned Work- 5.6%

Trees- 68.7%

Utility Equipment- 4.1%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	234.97
5.1	CIRCUIT 5 TEAR AVERAGE (SAIDI)	1 234.

10.) **2020 SAIDI** 225.82

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.77

12.) 2020 SAIFI 2.83

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

Trees Trimmed in 2020

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 81 of 360

1.) SUBSTATION NAME AND NUMBER	CORBIN EAST	

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Knox - Corner of State HWY 1232 and E Barbourville Rd - Corbin

3.) CIRCUIT NAME AND NUMBER 0275

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Corbin - Barbourville Rd - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 30.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 860

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/20/2015

8.) 2020 OUTAGES BY CAUSE

Animal- 0.3%

Construction- 0.0%

Lightning- 1.0%

Non-Company- 0.0%

Other/Unknown- 2.5%

Overload- 0.0%

Planned Work- 0.3%

Trees- 95.4%

Utility Equipment- 0.6%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	172.25

10.) 2020 SAIDI 134.70

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.10

12.) 2020 SAIFI 1.23

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

Reliability Improvements Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 82 of 360 Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Knox - Corner of State HWY 1232 and E Barbourville Rd - Corbin

3.) CIRCUIT NAME AND NUMBER 0279

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Corbin - Pennington Rd - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 9.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 391

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/28/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.2%

Construction- 0.0%

Lightning- 0.1%

Non-Company- 0.0%

Other/Unknown- 10.3%

Overload- 0.0%

Planned Work- 0.3%

Trees- 87.0%

Utility Equipment- 2.1%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	openius (88.80 )

10.) 2020 SAIDI	255.62
,	

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.43

12.) 2020 SAIFI 1.29

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

Tree Trim Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 83 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	PINEVILLE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Bell - Corner of E Park Ave and Maple St - Pineville
3.)	CIRCUIT NAME AND NUMBER	0301
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Pineville - US HWY 25E & KY HWY 66 - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	25.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,148
7.)	DATE OF LAST CIRCUIT TRIM (VM)	01/02/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.7%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 15.2%

Overload- 0.0%

Planned Work- 1.2%

Trees- 64.0%

Utility Equipment- 18.9%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	140.28
10.) <b>2020 SAIDI</b>	203.09
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.69
12.) 2020 SAIFI	1.66

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

Tree Trim Scheduled for 2021

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 84 of 360

1.) SUBSTATION NAME AND NUMBER CROCK
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bell - On HWY 66 across the street from Chaz Coal Co - Pineville

3.) CIRCUIT NAME AND NUMBER 0305

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Pineville - State HWY 66 - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 1.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 11

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/22/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 1.2%

Overload- 0.0%

Planned Work- 2.0%

Trees- 81.8%

Utility Equipment- 14.9%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 395.37

10.) 2020 SAIDI 653.43

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.52

12.) 2020 SAIFI 2.64

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 85 of 360

Wolfe

	Wolfe
1.) SUBSTATION NAME AND NUMBER	MELDRUM
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Bell - HWY 25/Wilderness Rd S of HWY 2486 Middlesborough
3.) CIRCUIT NAME AND NUMBER	0308
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Middlesborough - US HWY 25E - N of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	49.8
6.) CUSTOMER COUNT FOR THIS CIRCUIT	831
7.) DATE OF LAST CIRCUIT TRIM (VM)	06/24/2016
8.) 2020 OUTAGES BY CAUSE	
Animal-	- 0.1%
Construction-	- 0.0%
Lightning	- 0.0%
Non-Company-	- 0.0%
Other/Unknown-	- 1.3%
Overload-	- 0.0%
Planned Work-	· 0.3%
Trees	- 98.0%
Utility Equipment-	· 0.2%
Vehicle	- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (</b>	(SAIDI)	547.57
٦.١	CINCUIT 3 TEAN AVENAGE (	SAIDI)	J <del>4</del> /

10.) 2020 SAIDI	607.04	
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	3.37	
12.) <b>2020 SAIFI</b>	2.80	

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 86 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	GREASY CREEK 12KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bell - US HWY 25 at HWY 3085 - Pineville US HWY 25 AT HWY 3085 PINEVILLE

3.) CIRCUIT NAME AND NUMBER 0310

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Pineville - Mocking Bird - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 7.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 168

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/27/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.6%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 4.3%

Other/Unknown- 0.1%

Overload- 0.0%

Planned Work- 0.7%

Trees- 93.7%

Utility Equipment- 0.6%

Vehicle- 0.0%

10.) 2020 SAIDI 284.17

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.52

12.) 2020 SAIFI 2.73

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

Trees Trimmed in 2020

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 87 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	STINKING CREEK

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Knox - Croner of New US HWY 25 E and HWY 930 - Barbourville

3.) CIRCUIT NAME AND NUMBER 0313

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Barbourville - US HWY 25E - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 36.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 827

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/15/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.2%

Construction- 0.0%

Lightning- 0.4%

Non-Company- 0.6%

Other/Unknown- 8.1%

Overload- 0.0%

Planned Work- 1.9%

Trees- 88.8%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	180.47
9.1	) CIRCUII 5 YEAR AVERAGE (SAIDI)	10

10.) 2020 SAIDI 263.57

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.77

12.) 2020 SAIFI 2.49

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

Trees Trimmed in 2020

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 88 of 360 Wolfe

1.	SUBSTATION NAME AND NUMBER	MILL CREEK - KU
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bell - 5539 HWY 221 Kettle Island - Pineville

3.) CIRCUIT NAME AND NUMBER 0315

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Pineville - Martha Lock Branch Rd - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 14.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 342

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/03/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.1%

Non-Company- 0.1%

Other/Unknown- 3.1%

Overload- 0.0%

Planned Work- 3.5%

Trees- 93.0%

Utility Equipment- 0.2%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	130.60

10.) **2020 SAIDI** 67.10

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.06

12.) 2020 SAIFI 1.07

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

Tree Trim Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 89 of 360 Wolfe

1.	SUBSTATION NAME AND NUMBER	MILL CREEK - KU
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bell - 5539 HWY 221 Kettle Island - Pineville

3.) CIRCUIT NAME AND NUMBER 0316

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Pineville - State HWY 221 - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 30.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 337

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/07/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.2%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 7.5%

Overload- 0.0%

Planned Work- 21.0%

Trees- 67.6%

Utility Equipment- 3.8%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID)</b>	438.3
ر. ر	CINCUIT S TEAN AVENAGE (SAID)	430.5

10.) 2020 SAIDI 888.10

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.13

12.) 2020 SAIFI 2.54

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

Tree Trim Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 90 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	STRAIGHT CREEK
т.,	1 3003 IATION NAIVIL AND NOIVIDEN	SINAIGHICN

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bell - 3582 HWY 66 Arjay - Pineville

3.) CIRCUIT NAME AND NUMBER 0317

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Pineville - State HWY 66 - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 8.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 219

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/16/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 29.1%

Other/Unknown- 17.1%

Overload- 0.0%

Planned Work- 6.3%

Trees- 41.3%

Utility Equipment- 6.2%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	31.9
J.1	CINCOLL S LEAN AVENAGE (SAID)	31.3

10.) **2020 SAIDI** 48.70

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.39

12.) 2020 SAIFI 0.42

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

# Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 91 of 360

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Wolfe

			VV UIIC
1.)	SUBSTATION NAME AND NUMBER	DEER BRANCH	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Bell - HWY 66 0.5 miles S of Buffalo Hollow Rd, 7.5 miles N of HWY 221 - Pineville	
3.)	CIRCUIT NAME AND NUMBER	0319	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Pineville - State HWY 66 - S of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	13.7	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	228	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/23/2018	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.1%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	0.4%	
	Overload-	0.0%	
	Planned Work-	8.0%	
	Trees-	70.9%	
	Utility Equipment-	20.7%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	402.04	
10.)	2020 SAIDI	426.13	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	2.28	

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

Reliability Improvements Scheduled for 2021

12.) 2020 SAIFI

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 92 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	DEER BRANCH
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bell - Hwy 66 0.5 miles S of Buffalo Hollow Rd - Pineville

3.) CIRCUIT NAME AND NUMBER 0320

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Pineville - Hwy 66 & Buffalo Hollow Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 27

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/02/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 7.8%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 34.7%

Trees- 57.5%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAID	100.16
ر. ر	CINCOLL S LEAN AVENAGE (SAID	100.10

10.) 2020 SAIDI 174.32

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.65

12.) 2020 SAIFI 1.33

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

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Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Harlan - 5627 E HWY 72 Pathfork - Alva

3.) CIRCUIT NAME AND NUMBER 0321

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Alva - E Highway 72 - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 3.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 62

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/02/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 2.1%

Overload- 0.0%

Planned Work- 1.4%

Trees- 94.5%

Utility Equipment- 2.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	198.64

10.) 2020 SAIDI 295.31

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.04

12.) 2020 SAIFI 2.11

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 94 of 360

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1.) SUBSTATION NAME AND NUMBER	PUCKETT CREEK
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Harlan - 5627 E HWY 72 Pathfork - Alva

3.) CIRCUIT NAME AND NUMBER 0322

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Alva - E Highway 72 - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 10.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 295

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/02/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.6%

Construction- 0.0%

Lightning- 0.8%

Non-Company- 0.0%

Other/Unknown- 8.4%

Overload- 0.0%

Planned Work- 70.6%

Trees- 18.9%

Utility Equipment- 0.7%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	120.63

10.) 2020 SAIDI 125.83

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.98

12.) 2020 SAIFI 1.19

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 95 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	WACO
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Madison - 3761 New Irvine Rd - Madison East
3.)	CIRCUIT NAME AND NUMBER	0330

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Madison East - College Hill Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 7.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 184

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/10/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 100.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	4.86
10.) <b>2020 SAIDI</b>	2.46
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.04
12 \ 2020 SAIFI	0.05

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 96 of 360 Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Lee Ky - 584 New Yellow Rock Rd - Beattyville

3.) CIRCUIT NAME AND NUMBER 0332

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)**Beattyville - New Yellow Rock Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 57

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/12/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown-99.8%

Overload- 0.0%

Planned Work- 0.2%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) <b>CIR</b>	<b>CUIT 5 YEAR AVERAGE (SAID</b>	1) 320.94
9.) CIR	CUII 3 TEAR AVERAGE (SAID	1) 320.34

10.) **2020 SAIDI** 313.39

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.62

12.) 2020 SAIFI 2.02

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 97 of 360

1.) S	SUBSTATION NAME AND NUMBER	BEAR TRACK
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Lee Ky - 584 New Yellow Rock Rd - Beattyville

3.) CIRCUIT NAME AND NUMBER 0333

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)**Beattyville - New Yellow Rock Rd - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 10.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 17

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/31/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 10.1%

Overload- 0.0%

Planned Work- 2.4%

Trees- 87.5%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	161.36

10.) 2020 SAIDI 443.77

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.94

12.) 2020 SAIFI 3.67

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

Trees Trimmed in 2020

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 98 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	RICHMOND INDUSTRIAL
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Madison - 110 Mikron Way - Richmond
3.) CIRCUIT NAME AND NUMBER	0344
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Richmond - 1.51 miles S of Substation
5 ) TOTAL CIRCUIT LENGTH (MILES)	1.5

5.) TOTAL CIRCUIT LENGTH (MILES) 1.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 4

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/07/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 100.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	17.70
10.) <b>2020 SAIDI</b>	88.49
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.12
12.) 2020 SAIFI	0.60

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

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Wolfe

1.) SUBSTA	TION NAME AND NUMBER	MIDDLESBORO 2 12KV #2
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bell - Intersection of Cumberland Ace and S 38th St - Middlesborough

3.) CIRCUIT NAME AND NUMBER 0356

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Middlesborough - S 38th St - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 7.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 556

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/02/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 6.2%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 6.7%

Overload- 0.0%

Planned Work- 2.4%

Trees- 83.1%

Utility Equipment- 1.7%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI	33.03

10.) 2020 SAIDI 35.87

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.55

12.) 2020 SAIFI 0.73

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 100 of 360

Wolfe

1.) SUBSTATION NAME AND N	JMBER MIDDLESBORO 2 12KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bell - Intersection of Cumberland Ace and S 38th St - Middlesborough

3.) CIRCUIT NAME AND NUMBER 0360

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Middlesborough - State HWY 74 - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 30.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 400

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/01/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.1%

Construction- 0.0%

Lightning- 0.1%

Non-Company- 0.0%

Other/Unknown- 36.8%

Overload- 0.0%

Planned Work- 11.0%

Trees- 51.5%

Utility Equipment- 0.5%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	1) 240.02

10.) 2020 SAIDI 386.42

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.12

12.) 2020 SAIFI 1.23

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

Tree Trim Scheduled for 2021

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 101 of 360

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	V 1 0.220
1.) SUBSTATION NAME AND NUMBER	MIDDLESBORO 1 12KV
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Bell - Corner of N 19th and Ironwood Rd - Middlesborough
3.) CIRCUIT NAME AND NUMBER	0364
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Middlesborough - Nutwood Rd - N of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	10.2
6.) CUSTOMER COUNT FOR THIS CIRCUIT	560
7.) DATE OF LAST CIRCUIT TRIM (VM)	03/29/2018
8.) 2020 OUTAGES BY CAUSE	
Animal-	1.0%
Construction-	0.0%
Lightning-	2.2%
Non-Company-	0.0%
Other/Unknown-	9.1%
Overload-	0.0%
Planned Work-	30.0%
Trees-	55.3%
Utility Equipment-	2.4%
Vehicle-	0.0%
9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	85.35

10.) 2020 SAIDI 74.21

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.11

12.) 2020 SAIFI 1.38

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

Wolfe

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1.) SUBSTA	TION NAME AND NUMBER	MIDDLESBORO 1 12KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bell - Corner of N 19th and Ironwood Rd - Middlesborough

3.) CIRCUIT NAME AND NUMBER 0366

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Middlesborough - Asbury Rd & N 12th St - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 10.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 446

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/03/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 7.4%

Overload- 0.0%

Planned Work- 1.7%

Trees- 90.5%

Utility Equipment- 0.5%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	112.6
ر. و	CIRCUIT S TEAR AVERAGE (SAIDI)	) 112.(

10.) 2020 SAIDI 226.78

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.83

12.) 2020 SAIFI 1.78

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 103 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER MIDDLESBORO 1
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bell - Corner of N 19th and Ironwood Rd - Middlesborough

3.) CIRCUIT NAME AND NUMBER 0371

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Middlesborough - N 19th St - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 200

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/23/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 89.5%

Trees- 0.0%

Utility Equipment- 10.5%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAID	1) 7.1	7	3	3
ر. ر	CINCOLL 2 LEAN AVENAGE (SAID	1)	•		-

10.) 2020 SAIDI 15.29

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.08

12.) 2020 SAIFI 0.16

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 104 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	MIDDLESBORO 1 4KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bell - Corner of N 19th and Ironwood Rd - Middlesborough

3.) CIRCUIT NAME AND NUMBER 0372

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Middlesborough - Lynnwood Dr - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 402

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/23/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.8%

Overload- 0.0%

Planned Work- 7.1%

Trees- 92.1%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	26.00	)

10.) 2020 SAIDI 34.46

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.18

12.) 2020 SAIFI 0.19

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10
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Wolfe

1.)	SUBSTATION NAME AND NUMBER	DELAPLAIN
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Scott Ky - 413 Triport Cir - Sadieville

3.) CIRCUIT NAME AND NUMBER 0403

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Sadieville - 0.41 Miles N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/28/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	106.31

10.) **2020 SAIDI** 31.55

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.80

12.) 2020 SAIFI 1.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 106 of 360

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1.) SUBSTATION NAME AND NUMBER	DAYHOIT	
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Harlan - Dayhoit Dr (Keith Tremont Rd) - Harlan	
3.) CIRCUIT NAME AND NUMBER	0414	
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Harlan - US HWY 119 - N of Substation	
5.) TOTAL CIRCUIT LENGTH (MILES)	14.8	
6.) CUSTOMER COUNT FOR THIS CIRCUIT	575	
7.) DATE OF LAST CIRCUIT TRIM (VM)	10/19/2019	
8.) 2020 OUTAGES BY CAUSE		
Animal- 0.8%		
Construction- 0.0%		
Lightning- 0.0%		

Non-Company- 0.0%

Other/Unknown- 36.7%

Overload- 0.0%

Planned Work- 1.7%

Trees- 60.8%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	227.19	
10.) <b>2020 SAIDI</b>	201.21	
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.93	
12.) 2020 SAIFI	2.45	

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 107 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	DAYHOIT
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Harlan - Dayhoit Dr (Keith Tremont Rd) - Harlan

3.) CIRCUIT NAME AND NUMBER 0415

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Harlan - S US HWY 119 - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 14.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 400

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/09/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.7%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 23.3%

Overload- 0.0%

Planned Work- 3.4%

Trees- 72.7%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	262.71

10.) 2020 SAIDI 366.28

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.15

12.) 2020 SAIFI 2.49

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10
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Wolfe

1.)	SUBSTATION NAME AND NUMBER	CAWOOD
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bell - Off Slack Hollow Rd just N of S Old US HWY 421 - Cawood

3.) CIRCUIT NAME AND NUMBER 0418

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Cawood - US HWY 421 Bypass - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 31.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 697

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/31/2021

8.) 2020 OUTAGES BY CAUSE

Animal- 1.8%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 68.1%

Overload- 0.0%

Planned Work- 3.2%

Trees- 20.2%

Utility Equipment- 6.8%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 181.06

10.) 2020 SAIDI 118.73

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.53

12.) 2020 SAIFI 1.57

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 109 of 360

Wolfe

1.) JODSIA I ON MAINE AND NOMBER	1.)	ON NAME AND NUMBER	CAWOOD
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bell - Off Slack Hollow Rd just N of S Old US HWY 421 - Cawood

3.) CIRCUIT NAME AND NUMBER 0419

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Cawood - US HWY 421 Bypass - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 23.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 309

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/07/2021

8.) 2020 OUTAGES BY CAUSE

Animal- 0.4%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 11.2%

Overload- 0.0%

Planned Work- 7.1%

Trees- 75.6%

Utility Equipment- 5.8%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (</b>	(SAIDI)	451.71
J.,			

10.) 2020 SAIDI 963.18

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.46

12.) 2020 SAIFI 5.88

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

Trees Trimmed in 2021

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 110 of 360

1.) SUBSTATION NAME AND NUMBER	GEORGETOWN 4KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Scott Ky - 207 W Clinton St - Georgetown

3.) CIRCUIT NAME AND NUMBER 0420

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Georgetown - W & E on Clinton St

5.) TOTAL CIRCUIT LENGTH (MILES) 4.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 458

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/20/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 13.8%

Overload- 0.0%

Planned Work- 84.1%

Trees- 0.8%

Utility Equipment- 1.2%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (</b>	SAIDI)	12.52
9.1	CIRCUII 3 YEAR AVERAGE (	SAIDI)	12.

10.) 2020 SAIDI 18.33

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.09

12.) 2020 SAIFI 0.12

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 111 of 360 Wolfe

1.) SUBSTATION NAME AND NUMBER	NEWTOWN	

0430

2.) **SUBSTATION LOCATION (COUNTY-ROAD-TOWN)** Scott Ky - 5849 Paris Pike - Georgetown

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Georgetown - US 460 Pike - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 68.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 797

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/16/2021

8.) 2020 OUTAGES BY CAUSE

3.) **CIRCUIT NAME AND NUMBER** 

Animal- 4.0%

Construction- 0.4%

Lightning- 4.3%

Non-Company- 0.0%

Other/Unknown- 2.2%

Overload- 0.0%

Planned Work- 3.9%

Trees- 5.7%

Utility Equipment- 6.0%

Vehicle- 73.4%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	25.46
10.) 2020 SAIDI	24.21

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.19

12.) 2020 SAIFI 0.22

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 112 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	TURTLE CREEK
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Harlan - HWY 990 - Cawood

3.) CIRCUIT NAME AND NUMBER 0432

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Cawood - HWY 990 - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 3.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 90

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/06/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 89.9%

Overload- 0.0%

Planned Work- 9.6%

Trees- 0.5%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	196.45
9.1	CIRCUIT 5 YEAR AVERAGE (SAIDI)	1:

10.) 2020 SAIDI 236.56

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.31

12.) 2020 SAIFI 1.75

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 113 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LEMONS MILL

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Scott Ky - 125 Carley Ct - Georgetown

3.) CIRCUIT NAME AND NUMBER 0441

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Georgetown - Lemons Mill Rd - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 27.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,317

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/10/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.4%

Construction- 0.0%

Lightning- 4.4%

Non-Company- 0.0%

Other/Unknown- 81.0%

Overload- 0.0%

Planned Work- 1.7%

Trees- 0.0%

Utility Equipment- 12.4%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 89.72

10.) 2020 SAIDI 164.09

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.69

12.) 2020 SAIFI 1.07

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 114 of 360 Wolfe

1.) 30031ATION NAIVIL AND NOIVIDER LEWONS WIII	1.)	SUBSTATION NAME AND NUMBER	LEMONS MILL
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Scott Ky - 125 Carley Ct - Georgetown

3.) CIRCUIT NAME AND NUMBER 0442

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Georgetown - Holmes Dr - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 1.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 56

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/10/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 100.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	0.68
J.1	CINCOLL S LEAN AVENAGE (SAID)	.,

10.) 2020 SAIDI 3.40

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.01

12.) 2020 SAIFI 0.04

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10
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Wolfe

1.) SUBSTATION NAME AND NUMBER PO	OLE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Webster - 211 S Route 56 - Poole

3.) CIRCUIT NAME AND NUMBER 0446

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Poole - US Hwy 41A - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 7.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 200

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/05/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 100.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 31.43

10.) 2020 SAIDI 126.42

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.25

12.) 2020 SAIFI 1.00

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

Wolfe

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1.)	SUBSTATION NAME AND NUMBER	ROGERS GAP

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Scott Ky - 192 Harbor Village Dr - Stamping Ground

3.) CIRCUIT NAME AND NUMBER 0451

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Stamping Ground - Cincinnati Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 70.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,142

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/11/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.6%

Construction- 0.0%

Lightning- 1.7%

Non-Company- 0.2%

Other/Unknown- 37.2%

Overload- 0.0%

Planned Work- 0.8%

Trees- 1.0%

Utility Equipment- 54.4%

Vehicle- 4.1%

10.) **2020 SAIDI** 155.69

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 3.49

12.) 2020 SAIFI 3.57

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

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W	ol	lfe

1.) SUBSTATION NAME AND NUMBER	ADAMS 12KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Scott - 900 W Main St - Georgetown

3.) CIRCUIT NAME AND NUMBER 0453

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Georgetown Rd - Frankfort Rd - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 42.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,550

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/20/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 6.1%

Construction- 0.2%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 56.4%

Overload- 0.0%

Planned Work- 0.3%

Trees- 37.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	41.68

10.) 2020 SAIDI 44.27

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.85

12.) 2020 SAIFI 1.15

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 118 of 360

Wolfe

1.) JODSTATION NAIVIL AND NOIVIDEN CONBERTAL	1.	) SUBSTATION NAME AND NUMBER	CUMBERLAND
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Harlan - Russel Dr just S of E Main St - Cumberland

3.) CIRCUIT NAME AND NUMBER 0454

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Cumberland - Raymond D Hatfield Blvd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 9.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 542

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/12/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 2.4%

Overload- 0.0%

Planned Work- 1.1%

Trees- 91.2%

Utility Equipment- 5.2%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 147.75

10.) 2020 SAIDI 404.96

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.88

12.) 2020 SAIFI 1.28

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 119 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	CUMBERLAND
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Harlan - Russel Dr just S of E Main St - Cumberland
3.) CIRCUIT NAME AND NUMBER	0455
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Cumberland - N US HWY 119 - S & E of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	5.5
6.) CUSTOMER COUNT FOR THIS CIRCUIT	229
7.) DATE OF LAST CIRCUIT TRIM (VM)	02/12/2016
8.) 2020 OUTAGES BY CAUSE	
Animal-	0.0%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	14.4%
Overload-	0.0%
Planned Work-	0.0%
Trees-	64.0%
Utility Equipment-	0.1%
Vehicle-	21.6%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	44.42

10.) **2020 SAIDI** 171.41 11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.36

12.) 2020 SAIFI 1.37

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

#### Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 120 of 360 Wolfe

		, , one
1.)	SUBSTATION NAME AND NUMBER	CLOVERLICK
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Harlan - HWY 179 1/4 miles W from intersection of HWY 2006 and HWY 179 - Cumberland
3.)	CIRCUIT NAME AND NUMBER	0458
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Cumberland - State Hwy 2006 - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	8.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	147
7.)	DATE OF LAST CIRCUIT TRIM (VM)	03/15/2016
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.1%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	1.0%
	Overload-	0.0%
	Planned Work-	9.5%
	Trees-	89.4%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	117.93
10.)	2020 SAIDI	229.38
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.07
12.)	2020 SAIFI	0.96

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 121 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	BLACK MOUNTAIN
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Harlan - Black Mountain Rd - Lynch

3.) CIRCUIT NAME AND NUMBER 0467

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lynch - Radar Station Rd - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 10

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/26/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 38.7%

Overload- 0.0%

Planned Work- 0.0%

Trees- 61.3%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 753.52

10.) 2020 SAIDI 1102.00

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.49

12.) 2020 SAIFI 4.00

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 122 of 360

1.	SUBSTATION NAME AND NUMBER	OXFORD

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Scott Ky - 1827 Oxford Dr - Georgetown

3.) CIRCUIT NAME AND NUMBER 0472

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Georgetown - Oxford Rd - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 17.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,082

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/31/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.1%

Non-Company- 3.9%

Other/Unknown- 0.2%

Overload- 0.0%

Planned Work- 0.0%

Trees- 93.9%

Utility Equipment- 1.9%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	26.2
9.1	CIRCUIT 5 TEAR AVERAGE (SAIDI	۷) کو

10.) 2020 SAIDI 34.68

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.36

12.) 2020 SAIFI 0.44

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 123 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	SHADRACK
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Franklin - 74 Bethel Ln - Frankfort
3.) CIRCUIT NAME AND NUMBER	0475
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Frankfort - US HWY 127 - N of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	47.1
6.) CUSTOMER COUNT FOR THIS CIRCUIT	568
7.) DATE OF LAST CIRCUIT TRIM (VM)	03/09/2018
8.) 2020 OUTAGES BY CAUSE	
Animal-	5.6%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	11.0%
Overload-	0.0%
Planned Work-	21.2%

Utility Equipment- 0.9%

Vehicle- 3.4%

Trees- 57.9%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	72.13
10.) 2020 SAIDI	12.99
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.51
12.) <b>2020 SAIFI</b>	0.62

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 124 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	HIGHSPLINT
_⊥.,	) SUBSTATION NAIVIE AND NOIVIDER	HIGHSPL

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Harlan - KY 38 - Highsplint

3.) CIRCUIT NAME AND NUMBER 0483

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Highsplint - Gano St - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) Only0.05milesofcircuit

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 105.82

10.) **2020 SAIDI** 55.57

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.75

12.) 2020 SAIFI 1.00

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

# Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 125 of 360

0.19

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W	0	lf	e

		Wolfe
1.)	SUBSTATION NAME AND NUMBER	ALEXANDER
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Woodford - 2915 Troy Pike - Versailles
3.)	CIRCUIT NAME AND NUMBER	0501
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Woodford South - Troy Pike - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	55.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,993
7.)	DATE OF LAST CIRCUIT TRIM (VM)	03/21/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	1.0%
	Construction-	0.2%
	Lightning-	0.7%
	Non-Company-	0.0%
	Other/Unknown-	4.9%
	Overload-	0.0%
	Planned Work-	3.6%
	Trees-	56.6%
	Utility Equipment-	32.9%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	36.91
10.)	2020 SAIDI	49.55
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.27

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

Trees Trimmed in 2020

12.) 2020 SAIFI

#### Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 126 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	VERSAILLES
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Woodford - 150 Tanner Alley - Versailles
3.)	CIRCUIT NAME AND NUMBER	0505
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Versailles - Main St - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	5.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	546
7.)	DATE OF LAST CIRCUIT TRIM (VM)	06/10/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	44.9%
	Overload-	0.0%
	Planned Work-	25.8%
	Trees-	26.4%
	Utility Equipment-	2.9%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	34.77
10.)	2020 SAIDI	50.68
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.45
12.)	2020 SAIFI	0.42

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

Trees Trimmed in 2020

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 127 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	VERSAILLES
	, 55551711151111711112711151115211	V LITO/ TILLET

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Woodford - 150 Tanner Alley - Versailles

3.) CIRCUIT NAME AND NUMBER 0506

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Versailles - Main St - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 501

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/10/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.5%

Lightning- 0.0%

Non-Company- 0.3%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 1.4%

Trees- 16.0%

Utility Equipment- 81.8%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID)</b>	73.46

10.) 2020 SAIDI 182.05

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.62

12.) 2020 SAIFI 1.14

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 128 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	VERSAILLES BYPASS

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Woodford - 350 Markham Dr - Versailles

3.) CIRCUIT NAME AND NUMBER 0508

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Versailles - US 60 Bypass - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 339

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/10/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 24.1%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.2%

Overload- 32.7%

Planned Work- 5.8%

Trees- 0.0%

Utility Equipment- 37.2%

Vehicle- 0.0%

10.) **2020 SAIDI** 78.20

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.15

12.) 2020 SAIFI 2.00

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 129 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	VERSAILLES BYPASS
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Woodford - 350 Markham Dr - Versailles
3.) CIRCUIT NAME AND NUMBER	0511
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Versailles - 0.28 miles E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 4

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/20/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 71.8%

Overload- 0.0%

Planned Work- 28.2%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	17.37
10.) 2020 SAIDI	86.83
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.10
12.) <b>2020 SAIFI</b>	0.50

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

# Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 130 of 360

0.28

Wolfe

1.)	SUBSTATION NAME AND NUMBER	VERSAILLES WEST
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Woodford - 115 Rutter Rd - Versailles
3.)	CIRCUIT NAME AND NUMBER	0513
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Versailles - Clifton Rd - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	25.9
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	879
7.)	DATE OF LAST CIRCUIT TRIM (VM)	04/03/2021
8.)	2020 OUTAGES BY CAUSE	
	Animal-	6.2%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.3%
	Other/Unknown-	1.2%
	Overload-	0.0%
	Planned Work-	1.3%
	Trees-	80.1%
	Utility Equipment-	10.9%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	49.31
10.)	2020 SAIDI	56.25
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.40

 $13.) \ \ \textbf{LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN}$ 

Trees Trimmed in 2021

12.) 2020 SAIFI

1.00

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Wolfe

	,, one
1.) SUBSTATION NAME AND NUMBER	ALEXANDER
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Woodford - 2915 Troy Pike - Versailles
3.) CIRCUIT NAME AND NUMBER	0515
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Versailles - N & S on McCowans Ferry Rd - E of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	49.1
6.) CUSTOMER COUNT FOR THIS CIRCUIT	1,377
7.) DATE OF LAST CIRCUIT TRIM (VM)	08/29/2015
8.) 2020 OUTAGES BY CAUSE	
Animal-	1.6%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	27.3%
Overload-	0.0%
Planned Work-	0.0%
Trees-	0.9%
Utility Equipment-	69.7%
Vehicle-	0.4%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	90.35
10.) 2020 SAIDI	128.76
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.13

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

Continue to Monitor

12.) 2020 SAIFI

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 132 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	WOODLAKE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Franklin - 1635 Woodlake Rd - Frankfort

3.) CIRCUIT NAME AND NUMBER 0525

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Frankfort - Woodlake Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) No Trimming Necessary

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	I) 69.79

10.) 2020 SAIDI 97.95

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.60

12.) 2020 SAIFI 1.00

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

#### Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 133 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER SCIENCE HILL 2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Pulaski - 45 E HWY 635 neat the intersection of E hWY 635 and Maple Ln - Science Hill 3.) **CIRCUIT NAME AND NUMBER** 0527 4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Science Hill - N Highway 27 - NW of Substation 5.) TOTAL CIRCUIT LENGTH (MILES) 5.4 6.) CUSTOMER COUNT FOR THIS CIRCUIT 190 7.) DATE OF LAST CIRCUIT TRIM (VM) 05/19/2018 8.) 2020 OUTAGES BY CAUSE Animal- 0.0% Construction- 0.0% Lightning- 98.0% Non-Company- 0.0% Other/Unknown- 0.0% Overload- 0.0% Planned Work- 2.0% Trees- 0.0% Utility Equipment- 0.0% Vehicle- 0.0%

9.) **CIRCUIT 5 YEAR AVERAGE (SAIDI)** 42.28

10.) 2020 SAIDI 34.23

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.64

12.) 2020 SAIFI 1.02

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 134 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	WAYNESBURG
,	SODSTATION NAME AND NOMBER	WATINESDOIL

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Lincoln - On Old Somerset Rd (HWY 1247) just S of Clear Fork Rd - Waynesburg

3.) CIRCUIT NAME AND NUMBER 0546

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Waynesburg - KY HWY 1247 - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 10.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 263

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/02/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.4%

Construction- 0.0%

Lightning- 0.7%

Non-Company- 0.3%

Other/Unknown- 1.2%

Overload- 0.0%

Planned Work- 0.0%

Trees- 97.4%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	10.50

10.) 2020 SAIDI 17.49

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.10

12.) 2020 SAIFI 0.14

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

# Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10

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Wolfe

1.) SUBSTATION NAME AND NUMBER WAYNESBURG

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Lincoln - On Old Somerset Rd (HWY 1247) just S of Clear Fork Rd - Waynesburg

3.) CIRCUIT NAME AND NUMBER 0547

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Waynesburg - KY HWY 1247 - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 15.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 361

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/10/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.4%

Construction- 0.0%

Lightning- 36.2%

Non-Company- 0.0%

Other/Unknown- 8.3%

Overload- 0.0%

Planned Work- 0.0%

Trees- 32.2%

Utility Equipment- 22.9%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 103.10

10.) 2020 SAIDI 235.50

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.09

12.) 2020 SAIFI 2.67

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

Reliability Improvements Scheduled for 2021

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 136 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LIBERTY
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Casey - 1351 E KY HWY 70 - Liberty

3.) CIRCUIT NAME AND NUMBER 0551

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Liberty - E KY 70 - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 22.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 696

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/12/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 3.8%

Construction- 0.0%

Lightning- 1.4%

Non-Company- 0.1%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 1.7%

Trees- 86.6%

Utility Equipment- 6.5%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 80.68

10.) 2020 SAIDI 257.05

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.50

12.) 2020 SAIFI 1.27

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

Tree Trim Scheduled for 2021

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 137 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LIBERTY
-----	----------------------------	---------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Casey - 1351 E KY HWY 70 - Liberty

3.) CIRCUIT NAME AND NUMBER 0552

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Liberty - E KY 70 - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 29.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 514

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/21/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 2.8%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.1%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 1.3%

Trees- 94.3%

Utility Equipment- 1.5%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 90.00

10.) 2020 SAIDI 135.53

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.74

12.) 2020 SAIFI 0.94

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 138 of 360

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1.)	SUBSTATION NAME AND NUMBER	SHELBY CITY

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Boyle - 401 Grubbs Ln - Junction City

3.) CIRCUIT NAME AND NUMBER 0553

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Junction City - Hustonville Rd & Hwy 127 - SE & NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 20.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 877

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/30/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 1.0%

Construction- 0.0%

Lightning- 85.4%

Non-Company- 0.0%

Other/Unknown- 4.9%

Overload- 0.0%

Planned Work- 4.8%

Trees- 3.9%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	1) 26.43
ر. ر	CINCUIT S TEAN AVENAGE (SAID	1) 20.4.

10.) **2020 SAIDI** 75.36

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.24

12.) 2020 SAIFI 0.62

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 139 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	EDDYVILLE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Lyon - 1765 S R 3305 - Eddyville

3.) CIRCUIT NAME AND NUMBER 0560

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Eddyville - US HWY 62 & Riley Rd - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 48.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 487

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/09/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 2.4%

Construction- 0.0%

Lightning- 20.0%

Non-Company- 0.0%

Other/Unknown- 18.0%

Overload- 0.0%

Planned Work- 7.4%

Trees- 31.0%

Utility Equipment- 0.1%

Vehicle- 21.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAID	1) 59.4	19
9.)	CIRCUIT 5 YEAR AVERAGE (SAID	I) 5'	9.4

10.) 2020 SAIDI 95.58

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.65

12.) 2020 SAIFI 0.88

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 140 of 360 Wolfe

1.) SUBSTATION NAME AND NUMBER REVELO

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) McCreary - N of 4850 S HWY 1651 - Stearns-Whitley City

3.) CIRCUIT NAME AND NUMBER 0577

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Stearns-Whitley City - N & S on State HWY 1651

5.) TOTAL CIRCUIT LENGTH (MILES) 17.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 538

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/30/2015

8.) 2020 OUTAGES BY CAUSE

Animal- 0.6%

Construction- 0.0%

Lightning- 0.5%

Non-Company- 3.0%

Other/Unknown- 18.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 77.7%

Utility Equipment- 0.1%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 103.95

10.) 2020 SAIDI 178.06

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.85

12.) 2020 SAIFI 1.29

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

Tree Trim Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 141 of 360

W	o	lfe

4.)	
1.) SUBSTATION NAME AND NUMBER	WILMORE 12KV
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jessamine - 210 W Linden St - Wilmore
3.) CIRCUIT NAME AND NUMBER	0586
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Wilmore - Lexington Rd - N of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	49.5
6.) CUSTOMER COUNT FOR THIS CIRCUIT	1,284
7.) DATE OF LAST CIRCUIT TRIM (VM)	04/10/2021
8.) 2020 OUTAGES BY CAUSE	
Animal-	2.3%
Construction-	0.0%
Lightning-	0.5%
Non-Company-	0.0%
Other/Unknown-	15.2%
Overload-	0.0%
Planned Work-	0.9%
Trees-	14.9%
Utility Equipment-	66.3%
Vehicle-	0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	89.06
10.) 2020 SAIDI	107.76
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.62

12.) **2020 SAIFI** 0.42

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 142 of 360 Wolfe

1.) SUBSTATION NAME AND NUMBER	MOUNT STERLING 12KV	

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Montgomery 346 Calk Ave - Mount Sterling

3.) CIRCUIT NAME AND NUMBER 0601

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Mount Sterling - 686 Bypass - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 18.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,354

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/12/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 9.7%

Construction- 0.0%

Lightning- 3.5%

Non-Company- 0.0%

Other/Unknown- 3.1%

Overload- 0.0%

Planned Work- 1.1%

Trees- 19.2%

Utility Equipment- 63.4%

Vehicle- 0.0%

7.04

10.) 2020 SAIDI 15.87

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.10

12.) 2020 SAIFI 0.20

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 143 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	MOUNT STERLING 12KV
	, cobstitution in the installation	WIGOIN STEREING IZKV

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Montgomery 346 Calk Ave - Mount Sterling

3.) CIRCUIT NAME AND NUMBER 0602

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Mount Sterling - Richmond Ave - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 377

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/12/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 87.0%

Trees- 0.0%

Utility Equipment- 13.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 5	. 42
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10.) 2020 SAIDI 11.57

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.05

12.) 2020 SAIFI 0.07

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 144 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	CAMARGO
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Montgomery - 555 S Queen St - Mt Sterling
3.) CIRCUIT NAME AND NUMBER	0603
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Mount Sterling - S Queen St - N of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	16.4
6.) CUSTOMER COUNT FOR THIS CIRCUIT	1,295
7.) DATE OF LAST CIRCUIT TRIM (VM)	12/29/2018
8.) 2020 OUTAGES BY CAUSE	
Animal	- 1.0%
Construction-	- 1.9%
Lightning	- 4.5%
Non-Company-	- 0.0%
Other/Unknown-	- 2.5%
Overload-	- 0.0%

Planned Work- 2.0%

Trees- 16.0%

Utility Equipment- 0.7%

Vehicle- 71.5%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	22.77
10.) 2020 SAIDI	63.39
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.37
12.) 2020 SAIFI	1.20

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10
Page 145 of 360
Wolfe

1.) SUBSTATION NAME AND NUMBER	A O SMITH
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Montgomery - 1871 Owingsville Rd - Mt. Sterling

3.) CIRCUIT NAME AND NUMBER 0606

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Mount Sterling - Owingsville Rd - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 1.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 22

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/26/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 100.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.	) CIRCUIT 5 YEAR AVERAGE (SAIDI	)	37.27

10.) 2020 SAIDI 54.38

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.36

12.) 2020 SAIFI 0.73

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 146 of 360

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1.) SUBSTATION NAME AND NUMBER	A O SMITH
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Montgomery - 1871 Owingsville Rd - Mt. Sterling
3.) CIRCUIT NAME AND NUMBER	0608
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Mount Sterling - 6 miles W of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	6.3
6.) CUSTOMER COUNT FOR THIS CIRCUIT	211
7.) DATE OF LAST CIRCUIT TRIM (VM)	02/26/2018
8.) 2020 OUTAGES BY CAUSE	
Animal-	9.2%
Construction-	0.0%
Lightning-	26.4%
Non-Company-	0.0%
Other/Unknown-	44.7%
Overload-	0.0%

Planned Work- 9.8%

Trees- 0.0%

Utility Equipment- 9.9%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	6.29
10.) 2020 SAIDI	6.35
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.09
12.) 2020 SAIFI	0.14

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 147 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	OWINGSVILLE
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Montgomery - 69 W Paul Lewis Dr - Owingsville
3.) CIRCUIT NAME AND NUMBER	0610
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Owingsville - Slate Ave - S of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	8.7
6.) CUSTOMER COUNT FOR THIS CIRCUIT	473
7.) DATE OF LAST CIRCUIT TRIM (VM)	12/23/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 16.7%

Construction- 0.4%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 1.2%

Overload- 0.0%

Planned Work- 0.5%

Trees- 0.0%

Utility Equipment- 81.2%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	41.22
10.) 2020 SAIDI	73.09
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.62
12.) 2020 SAIFI	1.43

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 148 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	OWINGSVILLE
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Montgomery - 69 W Paul Lewis Dr - Owingsville
3.) CIRCUIT NAME AND NUMBER	0611
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Owingsville - W Main St - SW of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	25.1
6.) CUSTOMER COUNT FOR THIS CIRCUIT	721
7.) DATE OF LAST CIRCUIT TRIM (VM)	05/08/2018
8.) 2020 OUTAGES BY CAUSE	
Animal	- 6.2%
Construction	- 0.2%
Lightning	- 0.0%
Non-Company	- 0.0%
Other/Unknown	- 65.6%

Planned Work- 1.9%

Overload- 0.0%

Trees- 0.0%

Utility Equipment- 26.2%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	29.23
10.) 2020 SAIDI	59.31
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.42
12.) 2020 SAIFI	0.43

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 149 of 360

Wolfe

1.) SU	JBSTATION NAME AND NUMBER	SALT LICK
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bath - 11457 US HWY 60 E - Salt Lick

3.) CIRCUIT NAME AND NUMBER 0612

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Salt Lick - US HWY 60 - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 30.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 704

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/19/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.2%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.1%

Other/Unknown- 2.7%

Overload- 0.0%

Planned Work- 0.0%

Trees- 10.9%

Utility Equipment- 0.7%

Vehicle- 85.3%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 89.40

10.) 2020 SAIDI 341.54

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.51

12.) 2020 SAIFI 1.37

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 150 of 360

Wolfe

1.) SODSIATION NAME AND NOMBER	1.)	E AND NUMBER SAI	T LICK
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bath - 11457 US HWY 60 E - Salt Lick

3.) CIRCUIT NAME AND NUMBER 0613

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Salt Lick - US HWY 60 - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 9.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 232

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/24/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.6%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 57.1%

Overload- 0.0%

Planned Work- 0.0%

Trees- 38.7%

Utility Equipment- 3.6%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	1) 22.05

10.) 2020 SAIDI 50.93

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.22

12.) 2020 SAIFI 0.47

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 151 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	FARMERS
Τ.	, SOBSTATION NAME AND NOMBER	IANIVILING

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Rowan - 6901 US 60 W - Morehead

3.) CIRCUIT NAME AND NUMBER 0615

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Morehead - US HWY 60 - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 22.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 620

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/17/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.1%

Construction- 1.2%

Lightning- 4.8%

Non-Company- 0.7%

Other/Unknown- 31.9%

Overload- 0.0%

Planned Work- 3.8%

Trees- 19.6%

Utility Equipment- 37.9%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	29.15
9.) CIRCUII 5 YEAR AVERAGE (SAIDI)	29.1

10.) 2020 SAIDI 67.91

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.28

12.) 2020 SAIFI 0.82

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 152 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	MOREHEAD 4KV

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Rowan - 100 E Wilkinson Blvd - Morehead

3.) CIRCUIT NAME AND NUMBER 0618

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Morehead - Wilkinson Blvd - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 1.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 109

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/12/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 41.3%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 58.7%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	11.9	95
ر. ر	CINCOLL S LEAN AVENAGE (SAID)	1	

10.) 2020 SAIDI 12.80

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.09

12.) 2020 SAIFI 0.13

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 153 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	PARKER SEAL

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark - 390 Mt Sterling Rd - Winchester

3.) CIRCUIT NAME AND NUMBER 0629

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Winchester - Mt Sterling Rd - NE & S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 16.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 403

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/10/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 3.5%

Construction- 0.0%

Lightning- 0.2%

Non-Company- 0.0%

Other/Unknown- 22.9%

Overload- 0.0%

Planned Work- 16.4%

Trees- 3.0%

Utility Equipment- 6.5%

Vehicle- 47.4%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID)</b>	<b>I)</b> 39.4
ر. ر	CINCUIT 5 TEAN AVENAGE (SAID	1) 39. <del>'</del>

10.) 2020 SAIDI 67.23

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.56

12.) 2020 SAIFI 1.30

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

# Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10

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		, , one
1.)	SUBSTATION NAME AND NUMBER	WINCHESTER
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Clark - 2 Almond St - Winchester
3.)	CIRCUIT NAME AND NUMBER	0632
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Winchester - 1st St - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	0.6
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	77
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/24/2016
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	100.0%
	Trees-	0.0%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	7.34
10.)	2020 SAIDI	7.92
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.07
12.)	2020 SAIFI	0.06

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

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Wolfe

1.) SUBSTATION NAME AND NUMBER WINCHESTER

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark - 2 Almond St - Winchester

3.) CIRCUIT NAME AND NUMBER 0633

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Winchester - Winn Ave - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 190

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/18/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 7.1%

Overload- 0.0%

Planned Work- 44.3%

Trees- 29.5%

Utility Equipment- 6.4%

Vehicle- 12.6%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 59.97

10.) 2020 SAIDI 266.97

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.80

12.) 2020 SAIFI 3.50

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 156 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	SYLVANIA 4KV

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark - 439 E Washington St - Winchester

3.) CIRCUIT NAME AND NUMBER 0635

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Winchester - New St - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 93

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/18/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 96.6%

Overload- 0.0%

Planned Work- 3.4%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	) 25.51

10.) 2020 SAIDI 52.27

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.68

12.) 2020 SAIFI 2.00

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

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Wolfe

1.) SUBSTATION NAME AND NUMBER BOONE AVEN	1.)	ON NAME AND NUM	ER BOONE AVEN
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark - 660 Boone Ave. - Winchester

3.) CIRCUIT NAME AND NUMBER 0638

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Winchester - Boonesboro Rd & Hillcrest Dr - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 307

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/06/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 7.9%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 3.0%

Overload- 0.0%

Planned Work- 67.4%

Trees- 0.0%

Utility Equipment- 21.6%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	8.70
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10.) 2020 SAIDI 15.77

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.09

12.) 2020 SAIFI 0.15

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 158 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER BOONESBO	1.
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark - 170 Settlers Ln. - Winchester

3.) CIRCUIT NAME AND NUMBER 0643

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)**Boonesboro - Ford Rd and HWY 418 - N and S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 9.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 114

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/22/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 2.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 8.3%

Overload- 0.0%

Planned Work- 85.7%

Trees- 4.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	50.95
ر. و	CINCUIT 5 TEAR AVERAGE (SAIDI)	JU.3

10.) 2020 SAIDI 78.15

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.43

12.) 2020 SAIFI 0.81

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

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Wolfe

1.) SUBSTATION NAME AND NUMBER	EWINGTON

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Montgomery - 4006 Old Owingsville Rd - Mt Sterling

3.) CIRCUIT NAME AND NUMBER 0646

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Mt. Sterling - Old Owingsville Rd, Arlington Ave - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 9.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 608

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/01/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 3.3%

Overload- 0.0%

Planned Work- 0.0%

Trees- 5.2%

Utility Equipment- 91.5%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	20.84
5., G.1.651. 5 12.11.11.152 (G.1.5.)	

10.) 2020 SAIDI 77.25

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.32

12.) 2020 SAIFI 1.22

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

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Wolfe

1.) SUBSTATION NAME AND NUMBER	EWINGTON
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Montgomery - 4006 Old Owingsville Rd - Mt Sterling
3.) CIRCUIT NAME AND NUMBER	0647
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Mt. Sterling - Owingsville Rd, Quisenberry Rd - N of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	9.5
6.) CUSTOMER COUNT FOR THIS CIRCUIT	59
7.) DATE OF LAST CIRCUIT TRIM (VM)	06/01/2018
8.) 2020 OUTAGES BY CAUSE	
Animal-	2.8%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	19.5%
Overload-	0.0%
Planned Work-	3.6%
Trees-	14.1%
Utility Equipment-	10.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 102.43

Vehicle- 50.0%

10.) **2020 SAIDI** 93.91

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.66

12.) **2020 SAIFI** 0.75

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10
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Wolfe

1.) SUBSTATION NAME AND NUMBER	CAMARGO	

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Montgomery - 555 S Queen St - Mt Sterling

3.) CIRCUIT NAME AND NUMBER 0658

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Mt Sterling - US 460 Hwy, By-Pass, Burley Dr - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 337

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/22/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.6%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 8.7%

Overload- 0.0%

Planned Work- 0.3%

Trees- 2.1%

Utility Equipment- 88.2%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI	58.97
J.	CINCUIT STEAM AVENAGE (SAID)	J

10.) 2020 SAIDI 228.73

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.56

12.) 2020 SAIFI 2.35

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

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Wolfe

1.) SUBSTATION NAME AND N	JMBER CAMARGO
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Montgomery - 555 S Queen St - Mt Sterling

3.) CIRCUIT NAME AND NUMBER 0659

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Mt Sterling - US Hwy 460 - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 47.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,011

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/17/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.3%

Construction- 0.0%

Lightning- 0.8%

Non-Company- 0.0%

Other/Unknown- 86.3%

Overload- 0.0%

Planned Work- 0.0%

Trees- 7.9%

Utility Equipment- 0.5%

Vehicle- 4.2%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	135.5	4
ر. ر	CINCUIT 3 TEAN AVENAGE (SAIDI)	1 133	J

10.) 2020 SAIDI 194.61

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.61

12.) 2020 SAIFI 3.17

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 163 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	BEECHMONT
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Muhlenberg - 3660 Merle Travis Hwy - Beechmont

3.) CIRCUIT NAME AND NUMBER 0695

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Beechmont - US Hwy 431 - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 11.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 315

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/15/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.1%

Construction- 0.0%

Lightning- 0.6%

Non-Company- 0.0%

Other/Unknown- 80.9%

Overload- 8.7%

Planned Work- 0.1%

Trees- 8.7%

Utility Equipment- 0.9%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	81.80

10.) 2020 SAIDI 188.02

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.59

12.) 2020 SAIFI 1.33

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

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Wolfe

1.) SUBSTATION NAME AND NUMBER BEECH
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Muhlenberg - 3660 Merle Travis Hwy - Beechmont

3.) CIRCUIT NAME AND NUMBER 0696

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)**Beechmont - US Hwy 431, Hazel Creek Rd - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 16.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 371

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/08/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.1%

Other/Unknown- 90.1%

Overload- 0.3%

Planned Work- 2.4%

Trees- 0.0%

Utility Equipment- 7.2%

Vehicle- 0.0%

9.	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	77.91
٠.,	CINCUIT S TEAN AVENAGE (SAIDI	11.9

10.) 2020 SAIDI 117.45

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.63

12.) 2020 SAIFI 1.24

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

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Wolfe

1.) S	UBSTATION NAME AND NUMBER	BROMLEY

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Owen - 7205 Hwy 127 - New Liberty

3.) CIRCUIT NAME AND NUMBER 0701

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Bromley - State Hwy 36, St Hwy 227, & Alexander Rd - W of Subst.

5.) TOTAL CIRCUIT LENGTH (MILES) 75.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 950

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/08/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.7%

Construction- 0.0%

Lightning- 0.1%

Non-Company- 1.1%

Other/Unknown- 20.0%

Overload- 0.0%

Planned Work- 1.4%

Trees- 64.8%

Utility Equipment- 11.9%

Vehicle- 0.0%

10.) **2020 SAIDI** 165.95

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.25

12.) 2020 SAIFI 1.27

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

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Wolfe

1.) SUBSTATION NAME AND NUMBER	CARROLLTON 4KV
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Carroll - 802 Mason St - Carrollton
3.) CIRCUIT NAME AND NUMBER	0705
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Carrollton - 9th St - N of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	5.3
6.) CUSTOMER COUNT FOR THIS CIRCUIT	499
7.) DATE OF LAST CIRCUIT TRIM (VM)	03/19/2020
8.) 2020 OUTAGES BY CAUSE	
Animal-	0.0%
Construction-	0.0%
Lightning-	2.4%
Non-Company-	0.0%
Other/Unknown-	0.0%

Overload- 22.7%
Planned Work- 19.6%

Trees- 27.9%

Utility Equipment- 27.5%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	8.14
10.) <b>2020 SAIDI</b>	10.62
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.09
12.) 2020 SAIFI	0.13

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

Trees Trimmed in 2020

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Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Carroll - 802 Mason St - Carrollton	
3.) CIRCUIT NAME AND NUMBER	0707	
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Carrollton - HWY 227 - SE of Substation	
5.) TOTAL CIRCUIT LENGTH (MILES)	30.5	
6.) CUSTOMER COUNT FOR THIS CIRCUIT	747	
7.) DATE OF LAST CIRCUIT TRIM (VM)	03/19/2020	
8.) 2020 OUTAGES BY CAUSE		
Animal- 0.9%		
Construction- 0.0%		
Lightning- 2.4%		

**CARROLLTON 12KV** 

Overload- 0.0%

Non-Company- 0.0%

Other/Unknown- 9.0%

Planned Work- 14.7%

Trees- 52.7%

Utility Equipment- 14.1%

Vehicle- 6.2%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	162.49	
10.) 2020 SAIDI	85.29	
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.47	
12.) 2020 SAIFI	1.97	

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

Trees Trimmed in 2020

1.) SUBSTATION NAME AND NUMBER

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	CARROLLTON 12KV
1.,	SODSTATION NAME AND NOMBER	CARROLLION 12R

2.) **SUBSTATION LOCATION (COUNTY-ROAD-TOWN)** Carroll - 802 Mason St - Carrollton

3.) CIRCUIT NAME AND NUMBER 0709

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Carrollton - KY 36 - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 22.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 387

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/16/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 1.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 80.1%

Other/Unknown- 1.5%

Overload- 0.0%

Planned Work- 1.7%

Trees- 10.2%

Utility Equipment- 5.5%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 87.65

10.) 2020 SAIDI 154.40

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.58

12.) 2020 SAIFI 0.59

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

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Wolfe

1.	SUBSTATION NAME AND NUMBER	DAYTON-WALTHER
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Carroll - 5220 Highway 42 E - Carrollton

3.) CIRCUIT NAME AND NUMBER 0710

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Carrollton - D Rd & US HWY 42 - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 48

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/05/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 100.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	50.68
9.1	CIRCUIT 5 YEAR AVERAGE (SAIDI)	J 30.

10.) 2020 SAIDI 59.62

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.52

12.) 2020 SAIFI 1.00

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 170 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	OWENTON
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Owen - 327 Gayle Avenue - Owenton
3.) CIRCUIT NAME AND NUMBER	0715
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Owenton - Madison St - S of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	1.4
6.) CUSTOMER COUNT FOR THIS CIRCUIT	169
7.) DATE OF LAST CIRCUIT TRIM (VM)	09/10/2016
8.) 2020 OUTAGES BY CAUSE	
Animal-	0.0%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	8.1%
Overload-	0.0%
Planned Work-	91.9%
Trees-	0.0%
Utility Equipment-	0.0%
Vehicle-	0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 5.85

10.) **2020 SAIDI** 4.26

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.06

12.) 2020 SAIFI 0.11

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 171 of 360 Wolfe

1.	SUBSTATION NAME AND NUMBER	GHENT
	, 55551711151111711112711151115211	OTILITI

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Carroll - 402 Liberty - Ghent

3.) CIRCUIT NAME AND NUMBER 0717

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Ghent - US HWY 42 - NE & SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 8.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 287

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/26/2015

8.) 2020 OUTAGES BY CAUSE

Animal- 0.6%

Construction- 0.0%

Lightning- 53.6%

Non-Company- 0.0%

Other/Unknown- 0.4%

Overload- 0.0%

Planned Work- 9.1%

Trees- 10.8%

Utility Equipment- 25.5%

Vehicle- 0.0%

10.) 2020 SAIDI 103.97

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.35

12.) 2020 SAIFI 1.11

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 172 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	HUNTERS BOTTOM
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Trimble - 400 Hunter Heights Rd - Milton
3.) CIRCUIT NAME AND NUMBER	0719
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Milton - N Spillman Lan, HWY 421 N - SE of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	25.5
6.) CUSTOMER COUNT FOR THIS CIRCUIT	502
7.) DATE OF LAST CIRCUIT TRIM (VM)	10/23/2020
8.) 2020 OUTAGES BY CAUSE	
Animal- 0.2%	
Construction-	- 0.0%
Lightning-	- 26.1%
Non-Company-	0.0%
Other/Unknown-	9.4%
Overload-	- 0.0%
Planned Work-	- 0.3%
Trees	- 63.0%
Utility Equipment-	1.0%
Vehicle-	- 0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	123.67
10.) <b>2020 SAIDI</b>	149.42
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.18
12.) 2020 SAIFI	1.11

 $13.) \ \ \text{LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN}$ 

Trees Trimmed in 2020

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 173 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER SCHO
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Owen - 970 HWY 127 N - Owenton

3.) CIRCUIT NAME AND NUMBER 0724

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Owenton - HWY 127 N, State HWY 845 - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 12.6

6.) **CUSTOMER COUNT FOR THIS CIRCUIT** 179

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/13/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 19.7%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 47.0%

Trees- 0.0%

Utility Equipment- 33.3%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	16.80
J.	CINCOLL S LEAN AVENAGE (SAID)	10.00

10.) **2020 SAIDI** 6.94

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.08

12.) 2020 SAIFI 0.08

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 174 of 360

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1.)	SUBSTATION NAME AND NUMBER	WARSAW
	SOBSTATION NAME AND NOMBER	WANSA

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Gallatin - RR 1 Box 51 - Warsaw

3.) CIRCUIT NAME AND NUMBER 0728

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Warsaw - Dry Creek Rd - S & E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 9.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 92

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/31/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 2.8%

Construction- 0.0%

Lightning- 4.0%

Non-Company- 0.0%

Other/Unknown- 32.5%

Overload- 0.0%

Planned Work- 3.5%

Trees- 25.4%

Utility Equipment- 31.9%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAID	I) 69.4	6
J.1		1) UJ.¬	г

10.) 2020 SAIDI 125.40

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.37

12.) 2020 SAIFI 0.59

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 175 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SPARTA
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Owen - RR 1 Box 136C - Sparta

3.) CIRCUIT NAME AND NUMBER 0730

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Sparta - State HWY 467 - NE & SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 28.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 374

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/31/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 1.1%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.5%

Overload- 0.0%

Planned Work- 3.6%

Trees- 82.7%

Utility Equipment- 10.9%

Vehicle- 1.2%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 108.80

10.) **2020 SAIDI** 88.67

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40

12.) 2020 SAIFI 0.49

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

# Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 176 of 360

0.05

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SPARTA	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Owen - RR 1 Box 136C - Sparta	
3.)	CIRCUIT NAME AND NUMBER	0731	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Sparta - State HWY 467 - SW of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	5.8	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	107	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	12/31/2018	
8.)	2020 OUTAGES BY CAUSE		
	Animal- 0.0%		
	Construction- 0.0%		
	Lightning- 0.0%		
	Non-Company- 0.0%		
	Other/Unknown- 0.0%		
	Overload- 0.0%		
	Planned Work- 61.1%		
	Trees-	0.0%	
	Utility Equipment- 38.9%		
	Vehicle- 0.0%		
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	5.65	
10.)	2020 SAIDI	6.74	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.06	

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

Continue to Monitor

12.) 2020 SAIFI

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 177 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	WARSAW
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Gallatin - RR 1 Box 51 - Warsaw
3.) CIRCUIT NAME AND NUMBER	0734
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Warsaw - Smith Ave, Center Ave, E Main St - NE of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	3.3
6.) CUSTOMER COUNT FOR THIS CIRCUIT	443
7.) DATE OF LAST CIRCUIT TRIM (VM)	01/16/2016
8.) 2020 OUTAGES BY CAUSE	
Animal-	- 0.0%
Construction-	- 0.0%
Lightning-	- 0.0%
Non-Company-	0.0%
Other/Unknown-	- 0.0%
Overload-	- 0.0%
Planned Work-	- 20.3%
Trees-	- 0.0%
Utility Equipment-	· 79.7%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 4.76

Vehicle- 0.0%

10.) **2020 SAIDI** 4.71

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.03

12.) **2020 SAIFI** 0.04

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 178 of 360

Wolfe

1./ JODSTATION NAME AND NOTIFIED BOOK AVENU	1.)	STATION NAME AND NUMBER	BOONE AVENUE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark - 660 Boone Ave. - Winchester

3.) CIRCUIT NAME AND NUMBER 0769

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Winchester - Boone Ave, Harkins Ave, Skylark Dr- NW of Subst.

5.) TOTAL CIRCUIT LENGTH (MILES) 16.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,440

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/03/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 6.2%

Construction- 0.0%

Lightning- 3.3%

Non-Company- 0.0%

Other/Unknown- 1.2%

Overload- 0.0%

Planned Work- 13.4%

Trees- 38.3%

Utility Equipment- 37.7%

Vehicle- 0.0%

9.) <b>C</b>	IRCUIT 5 YEAR AVERAGE (SAID	25.14
J. 1 C	INCUIT 3 TEAN AVENAGE (SAID)	·I 2J.1

10.) 2020 SAIDI 37.48

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.24

12.) 2020 SAIFI 0.37

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 179 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	HARRODSBURG NORTH
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mercer - 1000 Warwick Rd - Harrodsburg

3.) CIRCUIT NAME AND NUMBER 0773

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Harrodsburg - Warwick Rd, N Greenville St - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 193

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/19/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 28.5%

Construction- 0.0%

Lightning- 15.1%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 12.5%

Trees- 0.0%

Utility Equipment- 44.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	37.36

10.) 2020 SAIDI 123.91

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.47

12.) 2020 SAIFI 1.57

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 180 of 360

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1.)	SUBSTATION NAME AND NUMBER	MOREHEAD 12KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Rowan - 100 E Wilkinson Blvd - Morehead

3.) CIRCUIT NAME AND NUMBER 0779

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Morehead - Wilkinson Blvd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 7.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 468

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/27/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 26.3%

Overload- 0.0%

Planned Work- 0.5%

Trees- 15.9%

Utility Equipment- 57.2%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAID	1) 75.1	2
ر. ر	CINCOLL 2 LEAN AVENAGE (SAID	73.1	

10.) 2020 SAIDI 290.49

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.76

12.) 2020 SAIFI 3.15

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

### Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 181 of 360

0.07

Wolfe

1.) SUBSTATION NAME AND NUMBER	PARIS 12KV
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Bourbon - 520 Scott Ave - Paris
3.) CIRCUIT NAME AND NUMBER	0795
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Paris - Clintonville Rd - SW of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	16.9
6.) CUSTOMER COUNT FOR THIS CIRCUIT	1,034
7.) DATE OF LAST CIRCUIT TRIM (VM)	03/15/2021
8.) 2020 OUTAGES BY CAUSE	
Animal-	11.7%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	0.0%
Overload-	0.0%
Planned Work-	0.0%
Trees-	60.4%
Utility Equipment-	27.9%
Vehicle-	0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	7.17
10.) 2020 SAIDI	7.70
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.10

12.) **2020 SAIFI** 

Trees Trimmed in 2021

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

180

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 182 of 360

0.05

Wolfe

1.)	SUBSTATION NAME AND NUMBER	CORPORATE DRIVE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Clark - 4011 Corporate Dr - Winchester
3.)	CIRCUIT NAME AND NUMBER	0799
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Winchester - Corporate Dr & Fortune Dr - NW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	5.4
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	37
7.)	DATE OF LAST CIRCUIT TRIM (VM)	09/01/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	95.3%
	Trees-	0.0%
	Utility Equipment-	4.7%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	3.17
10.)	2020 SAIDI	4.59
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.06

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

Continue to Monitor

12.) 2020 SAIFI

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 183 of 360 Wolfe

1.) SUBSTATION NAME AND NUMBER PARIS 12KV

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bourbon - 520 Scott Ave - Paris

3.) CIRCUIT NAME AND NUMBER 0805

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Paris - Spears Mill Rd and WHY 460 - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 82.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 864

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/29/2015

8.) 2020 OUTAGES BY CAUSE

Animal- 0.1%

Construction- 0.5%

Lightning- 0.9%

Non-Company- 45.3%

Other/Unknown- 10.9%

Overload- 0.0%

Planned Work- 10.4%

Trees- 27.0%

Utility Equipment- 4.9%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI	100.61
ر. ر	CINCOLL S LEAN AVENAGE (SAID)	1

10.) 2020 SAIDI 189.25

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.09

12.) 2020 SAIFI 1.91

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

Tree Trim Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 184 of 360

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1.) SUBSTATION NAME AND NUMBER	MILLERSBURG
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Bourbon - Vimont Ln. – Millersburg
3.) CIRCUIT NAME AND NUMBER	0807
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Millersburg - Vimont Ln, W 5th St - N & E of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	3.2
6.) CUSTOMER COUNT FOR THIS CIRCUIT	103
7.) DATE OF LAST CIRCUIT TRIM (VM)	06/22/2015
8.) 2020 OUTAGES BY CAUSE	
Animal- 58.9%	
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%

Overload- 0.0%

Planned Work- 0.0%

Other/Unknown- 26.0%

Trees- 0.0%

Utility Equipment- 15.1%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	1.91
10.) 2020 SAIDI	5.08
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.03
12.) 2020 SAIFI	0.08

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 185 of 360 Wolfe

1.	SUBSTATION NAME AND NUMBER	HANSON
⊥.,	SODSTATION NAME AND NOMBER	ПАПО

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hopkins - 235 Fowler Rd - Hanson

3.) CIRCUIT NAME AND NUMBER 0811

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Hanson - US HWY 41 & City of Hanson - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 17.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 617

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/03/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 5.4%

Construction- 0.0%

Lightning- 39.4%

Non-Company- 0.0%

Other/Unknown- 8.7%

Overload- 0.0%

Planned Work- 32.7%

Trees- 0.9%

Utility Equipment- 12.9%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAID	147.34

10.) **2020 SAIDI** 19.55

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.98

12.) 2020 SAIFI 1.17

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 186 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	DOZIER HEIGHTS
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hopkins - 200 Claire Ln - Madisonville

3.) CIRCUIT NAME AND NUMBER 0814

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Madisonville - Circuit no longer exists - N/A

5.) TOTAL CIRCUIT LENGTH (MILES) 0.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 2

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/30/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 100.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 35.29

10.) 2020 SAIDI 132.47

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40

12.) 2020 SAIFI 1.00

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 187 of 360

0.70

0.62

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1.) SUBSTATION NAME AND NUMBER	DOZIER HEIGHTS
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Hopkins - 200 Claire Ln - Madisonville
3.) CIRCUIT NAME AND NUMBER	0816
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Madisonville - Sandcut Ln, Mcleod Ln, Grapvine Rd - N&E of Subs.
5.) TOTAL CIRCUIT LENGTH (MILES)	21.5
6.) CUSTOMER COUNT FOR THIS CIRCUIT	804
7.) DATE OF LAST CIRCUIT TRIM (VM)	09/07/2019
8.) 2020 OUTAGES BY CAUSE	
Animal	- 1.7%
Construction	- 4.4%
Lightning	- 0.8%
Non-Company	- 0.0%
Other/Unknown	- 14.7%
Overload	- 0.0%
Planned Work	- 4.8%
Trees	- 71.8%
Utility Equipment	- 1.8%
Vehicle	- 0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	43.46
10.) 2020 SAIDI	46.23

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 188 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	NORTONVILLE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hopkins - 55 Holly Ln - Nortonville

3.) CIRCUIT NAME AND NUMBER 0818

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Nortonville - Mockingbird St, US 41, & Wells Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 17.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 367

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/15/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 1.8%

Construction- 0.0%

Lightning- 0.7%

Non-Company- 1.8%

Other/Unknown- 66.2%

Overload- 0.0%

Planned Work- 17.2%

Trees- 12.4%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	10.13
10.) 2020 SAIDI	16.63
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.13

12.) 2020 SAIFI 0.29

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 189 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	EAST DIAMOND	
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	WN) Hopkins - 550 East Diamond Rd - Madisonville	
3.) CIRCUIT NAME AND NUMBER	0825	
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Madisonville - Randall Dr, Meadowlark Ln - W of Substation	
5.) TOTAL CIRCUIT LENGTH (MILES)	9.5	
6.) CUSTOMER COUNT FOR THIS CIRCUIT	302	
7.) DATE OF LAST CIRCUIT TRIM (VM)	11/16/2019	
8.) 2020 OUTAGES BY CAUSE		
Animal-	0.0%	
Construction-	0.0%	
Lightning- 13.9%		
Non-Company- 4.4%		
Other/Unknown-	9.5%	
Overload-	0.0%	
Planned Work-	71.0%	
Trees-	0.0%	
Utility Equipment-	1.2%	
Vehicle-	0.0%	
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	9.46	
10.) <b>2020 SAIDI</b>	11.47	
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.16	
12.) 2020 SAIFI	0.13	

 $13.) \ \ \text{LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN}$ 

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 190 of 360

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	Wolfe
1.) SUBSTATION NAME AND NUMBER	EAST DIAMOND
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Hopkins - 550 East Diamond Rd - Madisonville
3.) CIRCUIT NAME AND NUMBER	0827
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Madisonville - Hwy 85, Hwy 892, & Hwy 1221 - NE & SE of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	23.0
6.) CUSTOMER COUNT FOR THIS CIRCUIT	357
7.) DATE OF LAST CIRCUIT TRIM (VM)	03/28/2020
8.) 2020 OUTAGES BY CAUSE	
Animal	- 0.0%
Construction-	1.7%
Lightning	- 0.0%
Non-Company-	• 0.0%
Other/Unknown	- 49.7%
Overload-	- 12.2%
Planned Work	- 16.8%
Trees	- 19.6%
Utility Equipment	0.0%
Vehicle	- 0.0%
9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	54.99
10 ) 2020 SAIDI	59 21

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	54.99
10.) 2020 SAIDI	59.21
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.82
12.) <b>2020 SAIFI</b>	0.80

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 191 of 360 Wolfe

1 \	CLIDCTATION NIABAT AND NUMBER	FIEC OIT!
1.1	SUBSTATION NAME AND NUMBER	FIES CITY

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hopkins - 2436 Central City Rd - Madisonville

3.) CIRCUIT NAME AND NUMBER 0841

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Madisonville - Central City Rd & Fies Ln - NW & SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 1.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 16

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/31/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 95.99

10.) 2020 SAIDI 479.95

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.60

12.) 2020 SAIFI 3.00

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 192 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	ASHBYBURG PUMP
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hopkins - 250 High Banks Ferry - Ashbyburg

3.) CIRCUIT NAME AND NUMBER 0844

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Ashbyburg - Highbanks Ferry Rd - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/31/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 42.5%

Other/Unknown- 57.5%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 35.83

10.) 2020 SAIDI 179.17

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40

12.) 2020 SAIFI 2.00

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 193 of 360

Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Harrison - RR 7 Box 729 White Oak Pike - Cynthiana
3.) CIRCUIT NAME AND NUMBER	0856
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Cynthiana - Western Ave, Ladish Rd, Hwy 27 - S of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	13.5
6.) CUSTOMER COUNT FOR THIS CIRCUIT	438
7.) DATE OF LAST CIRCUIT TRIM (VM)	11/21/2020
8.) 2020 OUTAGES BY CAUSE	
Animal-	- 0.8%

KAWNEER

Animal- 0.8%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 97.7%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.6%

Trees- 0.0%

Utility Equipment- 0.9%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	50.22
10.) <b>2020 SAIDI</b>	43.17
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.64
12.) 2020 SAIFI	1.02

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

Continue to Monitor

1.) SUBSTATION NAME AND NUMBER

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 194 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	KAWNEER
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Harrison - RR 7 Box 729 White Oak Pike - Cynthiana

3.) CIRCUIT NAME AND NUMBER 0857

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Harrison - White Oak Pike - WNW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 5

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/21/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 100.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI	4.63

10.) 2020 SAIDI 23.17

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.08

12.) 2020 SAIFI 0.40

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 195 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	WEST HICKMAN

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Fayette - 3172 Ashgrove Rd - Lexington

3.) CIRCUIT NAME AND NUMBER 0865

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lexington - Saron Dr, Tates Creek Rd, Kenesaw Dr - NE of Subst

5.) TOTAL CIRCUIT LENGTH (MILES) 24.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,288

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/16/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 6.9%

Construction- 0.1%

Lightning- 2.7%

Non-Company- 0.0%

Other/Unknown- 0.2%

Overload- 0.0%

Planned Work- 0.0%

Trees- 65.2%

Utility Equipment- 25.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAII</b>	OI) 31.71

10.) **2020 SAIDI** 90.86

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.28

12.) 2020 SAIFI 0.97

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 196 of 360

Wolfe

	vv one
1.) SUBSTATION NAME AND NUMBER	SHANNON RUN
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Woodford - 2770 Shannon Run Rd - Versailles
3.) CIRCUIT NAME AND NUMBER	0868
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Versailles - Shannon Run, Lexington Rd, Pisgah Rd - N of Subst
5.) TOTAL CIRCUIT LENGTH (MILES)	65.6
6.) CUSTOMER COUNT FOR THIS CIRCUIT	1,111
7.) DATE OF LAST CIRCUIT TRIM (VM)	04/10/2015
8.) 2020 OUTAGES BY CAUSE	
Animal	- 1.4%
Construction	- 0.0%
Lightning	- 6.7%
Non-Company-	- 0.0%
Other/Unknown-	- 10.5%
Overload:	- 0.0%
Planned Work	- 2.8%
Trees	- 66.7%

Utility Equipment- 11.9%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	135.64
10.) 2020 SAIDI	168.44
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.04
12.) 2020 SAIFI	0.96

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

Tree Trim Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 197 of 360

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1.)	SUBSTATION NAME AND NUMBER	CARLISLE 12KV

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Nicholas - 104 S Elm St - Carlisle

3.) CIRCUIT NAME AND NUMBER 0877

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Carlisle/Sharpsburg - S Upper Jackstown, Hwy 1285, Hwy 11 - SSE of Subst

5.) TOTAL CIRCUIT LENGTH (MILES) 44.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 670

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/18/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 1.2%

Construction- 0.0%

Lightning- 1.5%

Non-Company- 0.0%

Other/Unknown- 89.1%

Overload- 0.0%

Planned Work- 0.5%

Trees- 0.3%

Utility Equipment- 7.4%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	71.8
ر. ر	CINCOLL S LEAN AVENAGE (SAID)	1 / 1.0

10.) 2020 SAIDI 106.71

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.68

12.) 2020 SAIFI 1.15

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 198 of 360 Wolfe

1.) SUBSTATION NAME AND NUMBER	MAYSVILLE WEST
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mason - 210 Cox Alley - Maysville

3.) CIRCUIT NAME AND NUMBER 0900

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Maysville - Maddox Aly, 4th St, Hwy 62 - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 1.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 169

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/07/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 100.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	2.20
10.) <b>2020 SAIDI</b>	8.26
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.03

12.) 2020 SAIFI 0.11

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

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	Wolfe
1.) SUBSTATION NAME AND NUMBER	MAYSVILLE WEST
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Mason - 210 Cox Alley - Maysville
3.) CIRCUIT NAME AND NUMBER	0901
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Maysville - Maddox Aly, 4th St, Plum St, Mulberry St- SE of Subst.
5.) TOTAL CIRCUIT LENGTH (MILES)	2.0
6.) CUSTOMER COUNT FOR THIS CIRCUIT	381
7.) DATE OF LAST CIRCUIT TRIM (VM)	09/07/2019
8.) 2020 OUTAGES BY CAUSE	
Animal	- 0.0%
Construction	- 0.0%
Lightning	- 0.0%
Non-Company	- 0.0%
Other/Unknown	- 0.0%
Overload	- 0.0%
Planned Work	- 0.9%
Trees	- 2.3%
Utility Equipment	- 96.7%
Vehicle	- 0.0%
9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	9.09
10.) <b>2020 SAIDI</b>	10.02
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.23

5.) CINCOTT S TEAN AVENAGE (SAIDI)	3.03	
10.) <b>2020 SAIDI</b>	10.02	
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.23	
12.) <b>2020</b> SAIFI	0.07	

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 200 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	MAYSVILLE WEST
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mason - 210 Cox Alley - Maysville

3.) CIRCUIT NAME AND NUMBER 0902

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Maysville - Washington St, E 6th, Edgemont Rd - SW of Subst.

5.) TOTAL CIRCUIT LENGTH (MILES) 3.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 163

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/07/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.7%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.5%

Trees- 98.7%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (</b>	SAIDI)	122.55

10.) 2020 SAIDI 541.32

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.67

12.) 2020 SAIFI 2.69

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 201 of 360 Wolfe

1 )	SUBSTATION NAME AND NUMBER	MAYSVILLE WEST
1.,	30031A110N NAME AND NOMBLE	IVIA 13 VILLE WEST

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mason - 210 Cox Alley - Maysville

3.) CIRCUIT NAME AND NUMBER 0903

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Maysville - W 2nd St, W Mcdonald Pkwy - NW of Subst.

5.) TOTAL CIRCUIT LENGTH (MILES) 3.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 353

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/07/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.3%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 99.7%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	30.58
J.1	CINCOLL 2 LEAN AVENAGE (SAIDI)	30.30

10.) 2020 SAIDI 76.22

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.45

12.) 2020 SAIFI 0.57

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 202 of 360

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1.)	SUBSTATION NAME AND NUMBER	MAYSVILLE MID
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Mason - 314 Lexington St - Maysville
3.)	CIRCUIT NAME AND NUMBER	0909
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Maysville - E 2nd St, Lexington St - NW & NE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	3.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	488
7.)	DATE OF LAST CIRCUIT TRIM (VM)	10/12/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	1.6%
	Overload-	0.0%
	Planned Work-	86.2%
	Trees-	6.9%
	Utility Equipment-	5.3%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	13.30
10.)	2020 SAIDI	43.82
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.31

10.) <b>2020 SAIDI</b>	43.82
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.31
12.) 2020 SAIFI	0.17

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

Wolfe

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1.)	SUBSTATION NAME AND NUMBER	MAYSVILLE EAST
,	CODOTATION NAME AND INCOMEDEN	IVII (IS VILLE LI (SI

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mason - 1107 Forest Ave - Maysville

3.) CIRCUIT NAME AND NUMBER 0913

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Maysville - Bryant In, Hwy 10, Buckner St - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 10.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 832

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/12/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 1.9%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 58.6%

Other/Unknown- 2.3%

Overload- 0.0%

Planned Work- 3.0%

Trees- 29.0%

Utility Equipment- 5.2%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	14.6
5.1	CIRCUII 3 TEAR AVERAGE (SAIDI	i) 14.V

10.) 2020 SAIDI 16.86

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.17

12.) 2020 SAIFI 0.19

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 204 of 360

1.)	SUBSTATION NAME AND NUMBER	KENTON
,	SOBSTATION NAME AND NOMBER	KLIVIO

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mason - 801 Kenton Station Rd - Maysville

3.) CIRCUIT NAME AND NUMBER 0921

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Maysville - W Maple Leaf Rd, Jersey Ridge Rd - E&NE of Subst.

5.) TOTAL CIRCUIT LENGTH (MILES) 20.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 887

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/15/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.7%

Construction- 0.4%

Lightning- 2.9%

Non-Company- 0.0%

Other/Unknown- 0.1%

Overload- 0.0%

Planned Work- 2.0%

Trees- 84.9%

Utility Equipment- 9.1%

Vehicle- 0.0%

10.) 2020 SAIDI 85.23

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.70

12.) 2020 SAIFI 0.71

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 205 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	KENTON
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Mason - 801 Kenton Station Rd - Maysville
3.)	CIRCUIT NAME AND NUMBER	0922
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Maysville - Parker Rd, Hwy 10, Martha Comer Dr - W of Subst.
5.)	TOTAL CIRCUIT LENGTH (MILES)	4.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	115
7.)	DATE OF LAST CIRCUIT TRIM (VM)	01/23/2021

8.) 2020 OUTAGES BY CAUSE

Animal- 4.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 30.5%

Overload- 0.0%

Planned Work- 5.9%

Trees- 0.0%

Utility Equipment- 59.6%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	7.22
10.) 2020 SAIDI	11.37
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.15
12.) 2020 SAIFI	0.36

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 206 of 360

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1.)	SUBSTATION NAME AND NUMBER	KENTON
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mason - 801 Kenton Station Rd - Maysville

3.) CIRCUIT NAME AND NUMBER 0923

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Maysville - Hwy 10, Market Square Dr - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 19.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 361

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/23/2021

8.) 2020 OUTAGES BY CAUSE

Animal- 6.9%

Construction- 0.0%

Lightning- 89.4%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 2.2%

Trees- 0.6%

Utility Equipment- 0.8%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	14.59

10.) **2020 SAIDI** 46.68

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.33

12.) 2020 SAIFI 1.21

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 207 of 360 Wolfe

1.) SUBSTATION NAME AND NUMBER	AUGUSTA
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bracken - 318 E 4th St. - Augusta

3.) CIRCUIT NAME AND NUMBER 0929

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Augusta - 5th Street, Old August-Brooksville Rd - W&SW of Subst.

5.) TOTAL CIRCUIT LENGTH (MILES) 20.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 646

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/08/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.2%

Lightning- 1.9%

Non-Company- 0.3%

Other/Unknown- 4.4%

Overload- 0.0%

Planned Work- 1.2%

Trees- 85.0%

Utility Equipment- 7.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 85.41

10.) 2020 SAIDI 210.71

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.95

12.) 2020 SAIFI 1.91

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

0.26

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	SHARON	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Bracken - 3061 Asbury Rd - Augusta	
3.)	CIRCUIT NAME AND NUMBER	0935	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Augusta - Mt Zion Rd, City of Brooksville, Hwy 10&19 - NW&SW of Subst	
5.)	TOTAL CIRCUIT LENGTH (MILES)	77.0	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,186	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	01/19/2019	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.1%	
	Construction-	0.0%	
	Lightning-	2.8%	
	Non-Company-	0.0%	
	Other/Unknown-	1.5%	
	Overload-	0.0%	
	Planned Work-	0.2%	
	Trees-	3.9%	
	Utility Equipment-	91.5%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	41.61	
10.)	2020 SAIDI	56.91	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.47	

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

Continue to Monitor

12.) 2020 SAIFI

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Wolfe

1.) SUBSTATION NAME AND NUMBER SHARON

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bracken - 3061 Asbury Rd - Augusta

3.) CIRCUIT NAME AND NUMBER 0937

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Augusta - Woodward Rd, Clarks Run Rd - S&SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 45.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 558

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/16/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.2%

Construction- 0.0%

Lightning- 0.1%

Non-Company- 0.0%

Other/Unknown- 3.0%

Overload- 0.0%

Planned Work- 0.1%

Trees- 54.2%

Utility Equipment- 42.5%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 70.61

10.) 2020 SAIDI 195.54

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.82

12.) 2020 SAIFI 1.85

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 210 of 360 Wolfe

1.) SUBSTATION NAME AND NUMBER SAF	RDIS
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mason - 4000 Blue Lick Rd - Mays Lick

3.) CIRCUIT NAME AND NUMBER 0940

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Mays Lick/Mt Olivet - Hwy 62, Brierly Ridge Rd - W&NW of Subst.

5.) TOTAL CIRCUIT LENGTH (MILES) 20.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 465

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/18/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.1%

Construction- 0.0%

Lightning- 0.1%

Non-Company- 1.8%

Other/Unknown- 40.1%

Overload- 0.0%

Planned Work- 3.6%

Trees- 54.1%

Utility Equipment- 0.2%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (</b>	SAIDI)	165.51
J.,		J/1011	100.01

10.) 2020 SAIDI 242.75

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.73

12.) 2020 SAIFI 3.15

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

Trees Trimmed in 2020

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 211 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	CARNTOWN
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Pendleton - 15125 Hwy 8 - Foster

3.) CIRCUIT NAME AND NUMBER 0948

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Foster - Hwy 8 - S&SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 23.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 229

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/06/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 3.9%

Construction- 0.0%

Lightning- 1.1%

Non-Company- 0.0%

Other/Unknown- 2.1%

Overload- 0.0%

Planned Work- 3.1%

Trees- 6.6%

Utility Equipment- 83.2%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	88.18

10.) **2020 SAIDI** 46.41

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.68

12.) 2020 SAIFI 0.69

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 212 of 360 Wolfe

1 )	SUBSTATION NAME AND NUMBER	BUTLER
⊥.,	30631ATION NAIVIE AND NOIVIBER	BUILER

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Pendleton - 11095 Hwy 27 N - Burnside Butler

3.) CIRCUIT NAME AND NUMBER 0950

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)**Butler - City of Butler, Flour Creek Rd, Hwy 10 - ESE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 58.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 929

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/01/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.8%

Construction- 0.0%

Lightning- 0.2%

Non-Company- 0.0%

Other/Unknown- 4.1%

Overload- 0.0%

Planned Work- 0.0%

Trees- 76.8%

Utility Equipment- 18.1%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (</b>	SAIDI)	181.32

10.) 2020 SAIDI 397.08

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.44

12.) 2020 SAIFI 3.51

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

Tree Trim Scheduled for 2021

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 213 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	WEDONIA
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Mason - 6964 KY Hwy 11 - Maysville
3.) CIRCUIT NAME AND NUMBER	0965
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Maysville - Hwy 11 - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 32.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 382

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/07/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.5%

Construction- 0.0%

Lightning- 4.6%

Non-Company- 0.0%

Other/Unknown- 18.4%

Overload- 0.0%

Planned Work- 1.6%

Trees- 1.1%

Utility Equipment- 0.4%

Vehicle- 73.5%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	148.27
10.) 2020 SAIDI	248.72
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.15
12.) 2020 SAIFI	3.20

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

Wolfe

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 214 of 360

1.	SUBSTATION NAME AND NUMBER	WEDONIA

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mason - 6964 KY Hwy 11 - Maysville

3.) CIRCUIT NAME AND NUMBER 0966

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Flemingsburg - Hwy 170, City of Ewing - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 27.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 523

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/17/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.2%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 96.8%

Overload- 0.0%

Planned Work- 0.0%

Trees- 1.3%

Utility Equipment- 1.6%

Vehicle- 0.1%

91	CIRCUIT 5 YEAR AVERAGE (SAIDI)	279.51
J.1	CINCUIT STEAM AVENAGE (SAIDI)	213.31

10.) 2020 SAIDI 447.40

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.01

12.) 2020 SAIFI 1.03

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 215 of 360

W	ol	lfe

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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Mason - 6964 KY Hwy 11 - Maysville
3.) CIRCUIT NAME AND NUMBER	0967
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Flemingsbur - Hwy 11 - S of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	17.5
6.) CUSTOMER COUNT FOR THIS CIRCUIT	298
7.) DATE OF LAST CIRCUIT TRIM (VM)	05/27/2016

WEDONIA

8.) 2020 OUTAGES BY CAUSE

1.) SUBSTATION NAME AND NUMBER

Animal- 4.7%

Construction- 0.0%

Lightning- 0.4%

Non-Company- 0.0%

Other/Unknown- 5.0%

Overload- 0.0%

Planned Work- 0.4%

Trees- 27.4%

Utility Equipment- 62.1%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	160.52	
10.) 2020 SAIDI	152.62	
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.71	
12.) <b>2020 SAIFI</b>	1.39	

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 216 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	BARLOW
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Ballard - 433 Oscar Rd Barlow
3.) CIRCUIT NAME AND NUMBER	1312

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Barlow - N 6th St - City of Barlow

5.) TOTAL CIRCUIT LENGTH (MILES) 6.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 326

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/09/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 37.9%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 1.3%

Overload- 0.0%

Planned Work- 0.0%

Trees- 1.3%

Utility Equipment- 59.5%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	92.96
10.) 2020 SAIDI	44.83
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.40
12.) <b>2020 SAIFI</b>	0.64

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 217 of 360 Wolfe

1 \	SUBSTATION NAME AND NUMBER	FORESTDALE
1.1	SUBSTATION NAIVE AND NUIVIDER	FURESTDALE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) McCracken - 4250 Rice Springs Rd - Kevil

3.) CIRCUIT NAME AND NUMBER 1320

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Kevil - SR 1154, SR 996, & Cairo Rd - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 41.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 926

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/23/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 1.2%

Construction- 0.0%

Lightning- 0.1%

Non-Company- 0.0%

Other/Unknown- 1.5%

Overload- 0.0%

Planned Work- 0.2%

Trees- 86.7%

Utility Equipment- 10.2%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	132.28
J.1	CINCOLL S LEAN AVENAGE (SAID)	102.2

10.) 2020 SAIDI 171.39

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.89

12.) 2020 SAIFI 1.49

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

Reliability Improvements Scheduled for 2021

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 218 of 360

Wolfe

1.) SOBSTATION NAME AND NOTIFIED TORESTDALE	1.)	SUBSTATION NAME AND NUMBER	FORESTDALE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) McCracken - 4250 Rice Springs Rd - Kevil

3.) CIRCUIT NAME AND NUMBER 1322

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Kevil - Clarkline Rd, Kevil Rd, Woodville Rd, & Hwy 473 - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 26.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 605

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/07/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.7%

Construction- 0.2%

Lightning- 70.2%

Non-Company- 0.0%

Other/Unknown- 23.9%

Overload- 0.0%

Planned Work- 1.4%

Trees- 0.0%

Utility Equipment- 3.6%

Vehicle- 0.1%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	79.23
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10.) 2020 SAIDI 239.33

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.53

12.) 2020 SAIFI 1.65

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 219 of 360

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w	Ol	ITe.	

1.) SUBSTATION NAME AND NUMBER	CHRISTIAN
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Webster - 1678 S R 493 - Wheatcroft
3.) CIRCUIT NAME AND NUMBER	1404
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Wheatcroft - City of Wheatcroft - NW of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	10.8
6.) CUSTOMER COUNT FOR THIS CIRCUIT	198
7.) DATE OF LAST CIRCUIT TRIM (VM)	09/21/2019
8.) 2020 OUTAGES BY CAUSE	
Animal-	0.0%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	88.5%
Overload-	0.0%
Planned Work-	0.0%
Trees-	11.5%

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

5.65

10.) **2020 SAIDI** 

5.19

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.06

12.) **2020 SAIFI** 

0.09

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

Utility Equipment- 0.0%

Vehicle- 0.0%

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10
Page 220 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	DIAMOND
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Webster - 830 Bill Dorris Rd - Providence
3.) CIRCUIT NAME AND NUMBER	1410
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Providence - Bill Dorris Rd, S R 109 - SW of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	6.6
6.) CUSTOMER COUNT FOR THIS CIRCUIT	122
7.) DATE OF LAST CIRCUIT TRIM (VM)	06/29/2019
8.) 2020 OUTAGES BY CAUSE	
Animal-	6.0%
Construction-	0.0%
Lightning-	92.0%
Non-Company-	0.0%
Other/Unknown-	0.0%
Overload-	0.0%
Planned Work-	2.0%
Trees-	0.0%

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

34.95

10.) **2020 SAIDI** 

33.39

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.63

12.) 2020 SAIFI

0.65

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

Utility Equipment- 0.0%

Vehicle- 0.0%

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 221 of 360

Wolfe

1 \	SUBSTATION NAME AND NUMBER	CENTRAL CITY SOUTH
1.1	SUBSTATION NAIVIE AND NUIVIBER	CENTRAL CITY SOUTH

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Muhlenberg - 500 E Second Ave - Central City

3.) CIRCUIT NAME AND NUMBER 1416

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Central City - Everly Brothers Blvd - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) No Trimming Necessary

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 100.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 122.23

10.) 2020 SAIDI 488.93

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.50

12.) 2020 SAIFI 2.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 222 of 360

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1.) SUBSTATION NAME AND NUMBER	CORYDON
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Henderson - 5430 Greenlick Rd - Corydon
3.) CIRCUIT NAME AND NUMBER	1429
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Corydon - King Mill Rd - W of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	6.6
6.) CUSTOMER COUNT FOR THIS CIRCUIT	46
7.) DATE OF LAST CIRCUIT TRIM (VM)	09/05/2020
8.) 2020 OUTAGES BY CAUSE	
Animal	- 0.0%
Construction	- 0.0%
Lightning	- 0.0%
Non-Company	- 0.0%
Other/Unknown	- 0.0%

Planned Work- 0.7%

Overload- 0.0%

Trees- 71.3%

Utility Equipment- 28.1%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	33.96
10.) 2020 SAIDI	137.04
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.31
12.) 2020 SAIFI	1.10

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

Trees Trimmed in 2020

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 223 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	CORYDON
Τ.	JODSTATION NAME AND NOMBER	CONTDON

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Henderson - 5430 Greenlick Rd - Corydon

3.) CIRCUIT NAME AND NUMBER 1431

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Corydon - City of Corydon - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 14.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 435

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/05/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 17.8%

Non-Company- 0.0%

Other/Unknown- 16.9%

Overload- 0.0%

Planned Work- 3.9%

Trees- 61.3%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) <b>CIR</b> (	CUIT 5 YEAR AVERAGE (	SAIDI)	25.94
J.) CIR	JUII 3 TEAR AVERAGE (	JAIDI)	ZJ.3

10.) **2020 SAIDI** 56.05

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.26

12.) 2020 SAIFI 0.39

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

Trees Trimmed in 2020

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 224 of 360

Wolfe

1 )	SUBSTATION NAME AND NUMBER	SPENCER CHEMICAL 12KV
1.1	3063 I A HOIN MAINE AND MUNIDER	SPENCER CHEIVITCAL 12KV

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Henderson - 1413 Hwy 136 W - Henderson

3.) CIRCUIT NAME AND NUMBER 1437

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Henderson - Hwy 136 & Hwy 60 - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 84

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/21/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

10.) 2020 SAIDI 6.03

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.06

12.) 2020 SAIFI 0.07

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 225 of 360

1.)	SUBSTATION NAME AND NUMBER	MANITOU
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hopkins - 7615 Nebo Rd - Nebo

3.) CIRCUIT NAME AND NUMBER 1451

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Nebo - US 41 ALT & Happy Ln - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 8.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 133

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/26/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 1.7%

Overload- 0.0%

Planned Work- 12.9%

Trees- 1.0%

Utility Equipment- 84.4%

Vehicle- 0.0%

36.83

10.) 2020 SAIDI 101.32

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.48

12.) 2020 SAIFI 1.15

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

## Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10

Page 226 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	ZION
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Henderson - 7485 HWY 351 - Henderson

3.) CIRCUIT NAME AND NUMBER 1468

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Henderson - HWY 351/Zion Rd, Adams Ln, & Spring Garden Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 13.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 721

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/29/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.2%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.1%

Other/Unknown- 0.3%

Overload- 0.0%

Planned Work- 4.5%

Trees- 94.9%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	76.07

10.) 2020 SAIDI 349.22

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.34

12.) 2020 SAIFI 1.13

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

Trees Trimmed in 2020

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 227 of 360

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W	ol	lfe

1.) SUBSTATION NAME AND NUMBER	SEBREE
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Webster - 199 N Railroad St - Sebree
3.) CIRCUIT NAME AND NUMBER	1472
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Sebree - SR 56, College St, Jefferson St, & Old Beech Grove Rd - W/E of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	12.3
6.) CUSTOMER COUNT FOR THIS CIRCUIT	429
7.) DATE OF LAST CIRCUIT TRIM (VM)	04/25/2020
8.) 2020 OUTAGES BY CAUSE	
Animal-	- 2.4%
Construction-	- 0.0%
Lightning	- 5.5%
Non-Company-	- 0.0%
Other/Unknown-	- 61.8%
Overload-	- 0.0%
Planned Work-	- 30.2%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	5.77
10.) 2020 SAIDI	9.49
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.10
12.) 2020 SAIFI	0.28

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 228 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	KUTTAWA

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Lyon - 3487 Lake Barkley Dr - Kuttawa

3.) CIRCUIT NAME AND NUMBER 1501

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Kuttawa - Hwy 295, Lake Shore Dr, & Holley St - SW & SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 11.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 412

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/03/2021

8.) 2020 OUTAGES BY CAUSE

Animal- 0.6%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.5%

Overload- 0.0%

Planned Work- 0.4%

Trees- 2.3%

Utility Equipment- 96.2%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 90.82

10.) 2020 SAIDI 80.16

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.77

12.) 2020 SAIFI 1.06

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 229 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	FREDONIA
	SODSTATION NAME AND MOMBER	INCOUNT

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Caldwell - 150 Wigginton Ln - Fredonia

3.) CIRCUIT NAME AND NUMBER 1507

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Fredonia - City of Fredonia & Hwy 641 - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 11.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 249

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/10/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.3%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 1.1%

Trees- 0.0%

Utility Equipment- 2.2%

Vehicle- 96.3%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 101.25

10.) **2020 SAIDI** 60.67

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.93

12.) 2020 SAIFI 1.03

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 230 of 360

Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Caldwell - 150 Wigginton Ln - Fredonia

3.) CIRCUIT NAME AND NUMBER 1509

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Fredonia - Hwy 91, Princeton Fredonia Rd, & Marion Rd - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 34.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 191

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/10/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 1.0%

Non-Company- 0.0%

Other/Unknown- 0.6%

Overload- 0.0%

Planned Work- 0.2%

Trees- 98.1%

Utility Equipment- 0.2%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	150.89
ر. ر	CINCUIT 3 ILAN AVENAGE (SAIDI	130.6

10.) 2020 SAIDI 236.02

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.11

12.) 2020 SAIFI 1.53

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

Tree Trim Scheduled for 2021

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 231 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	BARNHILL
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Webster - 7390 Rabbit Ridge Rd - Providence
3.) CIRCUIT NAME AND NUMBER	1520

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Providence - Hwy 109 - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 29

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/11/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 5.6%

Overload- 0.0%

Planned Work- 94.4%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	1/5.26	
10.) <b>2020 SAIDI</b>	81.26	
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.41	
12 \ 2020 SAIFI	1.03	

475 26

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

Continue to Monitor

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 232 of 360

Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hopkins - 205 Munn St - Dawson Springs

3.) CIRCUIT NAME AND NUMBER 1525

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Dawson Springs - N Trim St, Sycamore St - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 156

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/11/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 4.0%

Construction- 0.0%

Lightning- 39.2%

Non-Company- 0.0%

Other/Unknown- 12.0%

Overload- 0.0%

Planned Work- 39.4%

Trees- 0.0%

Utility Equipment- 5.4%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	5.08
ر. ر	CINCOLL 3 LEAN AVENAGE (SAID)	<b>,</b>

10.) 2020 SAIDI 8.17

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.07

12.) 2020 SAIFI 0.12

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 233 of 360

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1.) SUBSTATION NAME AND NUMBER	CALHOUN
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	McLean - 530 W First St - Calhoun
3.) CIRCUIT NAME AND NUMBER	1606
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Calhoun - High St, W 7th St, S R 81 - N of Subst.
5.) TOTAL CIRCUIT LENGTH (MILES)	6.6
6.) CUSTOMER COUNT FOR THIS CIRCUIT	327
7.) DATE OF LAST CIRCUIT TRIM (VM)	10/06/2018
8.) 2020 OUTAGES BY CAUSE	
Animal-	12.1%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	6.1%
Overload-	0.0%
Planned Work-	19.1%
Trees-	5.3%
Utility Equipment-	48.8%
Vehicle-	8.7%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	6.15

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 6.15

10.) **2020 SAIDI** 5.19

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.05

12.) **2020 SAIFI** 0.05

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 234 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER SHAVERS CHAPEL

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Muhlenberg - 7870 S R 181 N - Bremen

3.) CIRCUIT NAME AND NUMBER 1609

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Bremen - S R 181, Buttermilk Rd, S R 175, & S R 81 - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 95.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,656

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/03/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 8.1%

Construction- 0.0%

Lightning- 6.3%

Non-Company- 0.0%

Other/Unknown- 4.4%

Overload- 0.0%

Planned Work- 0.5%

Trees- 1.3%

Utility Equipment- 62.8%

Vehicle- 16.7%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 60.79

10.) 2020 SAIDI 31.08

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.68

12.) 2020 SAIFI 1.49

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 235 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	GREENVILLE 12KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Muhlenberg - 200 N Boggess Ave - Greenville

3.) CIRCUIT NAME AND NUMBER 1614

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Greenville - Outer York, Lake Rd, & Rogers Ave - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 65

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/21/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 4.2%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 93.5%

Trees- 0.0%

Utility Equipment- 2.3%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIL</b>	oi) 13.13	3

10.) 2020 SAIDI 24.35

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.56

12.) 2020 SAIFI 2.03

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 236 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	GREENVILLE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Muhlenberg - 117 E Depot St - Greenville

3.) CIRCUIT NAME AND NUMBER 1623

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Greenville - N Main St & Broad St - N & S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 152

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/02/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 13.6%

Other/Unknown- 29.1%

Overload- 0.0%

Planned Work- 52.4%

Trees- 0.0%

Utility Equipment- 4.9%

Vehicle- 0.0%

91	CIRCUIT 5 YEAR AVERAGE (SAIDI)	52.95
J.1		JZ.JJ

10.) 2020 SAIDI 107.45

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.72

12.) 2020 SAIFI 1.21

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

### Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 237 of 360

Wolfe

1 \	SUBSTATION NAME AND NUMBER	POWDERLY
1.1	SUBSTATION NAIVIE AND NUIVIDER	POWDERLY

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Muhlenberg - Opportunity Way - Greenville

3.) CIRCUIT NAME AND NUMBER 1626

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Greenville - Main St - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 24.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 838

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/12/2015

8.) 2020 OUTAGES BY CAUSE

Animal- 0.3%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.2%

Overload- 0.0%

Planned Work- 6.8%

Trees- 35.5%

Utility Equipment- 57.3%

Vehicle- 0.0%

9.	) CIRCUIT 5 YEAR AVERAGE (SAIDI)	83.75

10.) 2020 SAIDI 207.82

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.80

12.) 2020 SAIFI 2.55

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

Tree Trim Scheduled for 2021

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 238 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LIVERMORE
	SODSTATION NAME AND NOMBER	LIVLINIO

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) McLean - 190 Main St - Livermore

3.) CIRCUIT NAME AND NUMBER 1642

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Livermore - Hill St, Hwy 431, & Comy Dock Rd - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 6.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 350

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/22/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.3%

Construction- 0.0%

Lightning- 53.3%

Non-Company- 0.0%

Other/Unknown- 44.9%

Overload- 0.0%

Planned Work- 0.0%

Trees- 1.5%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID)</b>	1) 88.86
		1

10.) 2020 SAIDI 184.18

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.76

12.) 2020 SAIFI 2.02

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 239 of 360 Wolfe

1.) SUBSTATION NAME AND NUMBER LIVERMORE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) McLean - 190 Main St - Livermore

3.) CIRCUIT NAME AND NUMBER 1643

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Livermore - Main St, 2nd St, 3rd St, & Broadway St - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 6.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 420

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/22/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 53.5%

Non-Company- 0.0%

Other/Unknown- 44.9%

Overload- 0.0%

Planned Work- 0.7%

Trees- 0.6%

Utility Equipment- 0.3%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 177.21

10.) 2020 SAIDI 186.51

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.88

12.) 2020 SAIFI 2.12

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

Reliability Improvements Scheduled for 2021

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 240 of 360 Wolfe

1.) SUBSTATION NAME AND NUMBER	CENTRAL CITY
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Muhlenberg - 106 Pendleton St - Central City
3.) CIRCUIT NAME AND NUMBER	1645
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Central City - Hwy 70, S Cherry Hill Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 12.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 419

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/07/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 1.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.6%

Trees- 90.0%

Utility Equipment- 8.4%

Vehicle- 0.0%

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

Reliability Improvements Scheduled for 2021

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## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 241 of 360

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1.	) SUBSTATION NAME AND NUMBER	BEECH CREEK 1
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Muhlenberg - 169 Beech Creek Browder Rd - Beech Creek

3.) CIRCUIT NAME AND NUMBER 1668

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)**Beech Creek - Arnold Hill Rd, State Route 1163 - SW of Subst.

5.) TOTAL CIRCUIT LENGTH (MILES) 21.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 278

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/08/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 1.7%

Construction- 0.0%

Lightning- 0.3%

Non-Company- 0.0%

Other/Unknown- 0.1%

Overload- 0.0%

Planned Work- 95.8%

Trees- 0.0%

Utility Equipment- 2.0%

Vehicle- 0.0%

10.) 2020 SAIDI 138.58

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.04

12.) 2020 SAIFI 1.22

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 242 of 360

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1.)	SUBSTATION NAME AND NUMBER	BEECH CREEK 1
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Muhlenberg - 169 Beech Creek Browder Rd - Beech Creek

3.) CIRCUIT NAME AND NUMBER 1671

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)**Beech Creek - Beech Creek Browder Rd - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 104

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/21/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 2.6%

Overload- 0.0%

Planned Work- 94.7%

Trees- 0.0%

Utility Equipment- 2.7%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI	72.20

10.) 2020 SAIDI 127.46

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.51

12.) 2020 SAIFI 1.17

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 243 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	DRAKESBORO

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Muhlenberg - 201 S Mine St - Drakesboro

3.) CIRCUIT NAME AND NUMBER 1673

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Drakesboro - Simmons St, S R 176, Merle Travis Hwy - SW of Subs

5.) TOTAL CIRCUIT LENGTH (MILES) 19.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 298

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/17/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.8%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 7.5%

Other/Unknown- 23.2%

Overload- 0.0%

Planned Work- 0.0%

Trees- 14.3%

Utility Equipment- 0.2%

Vehicle- 53.9%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 159.21

10.) 2020 SAIDI 130.24

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.64

12.) 2020 SAIFI 2.31

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 244 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	GREEN RIVER STEEL
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Daviess - 4575 US 60 E - Owensboro

3.) CIRCUIT NAME AND NUMBER 1676

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Owensboro - Ellis Smeathers Rd & US 60 - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 14

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/04/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 9.4%

Trees- 0.0%

Utility Equipment- 90.6%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	128.2
5.1	CIRCUIT 5 TEAR AVERAGE (SAIDI)	120

10.) **2020 SAIDI** 264.52

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.64

12.) 2020 SAIFI 1.43

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 245 of 360 Wolfe

1.) SUBSTATION	ON NAME AND NUMBER	REED MINERALS
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Muhlenberg - 4661 S R 176 Drakesboro - Drakesboro

3.) CIRCUIT NAME AND NUMBER 1693

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Drakesboro - S R 176 & P&M Haul Rd - NNE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 11

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/28/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 59.1%

Construction- 0.0%

Lightning- 33.2%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 7.7%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	140.22

10.) 2020 SAIDI 411.16

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.02

12.) 2020 SAIFI 2.73

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 246 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	MEXICO
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Crittenden - 2747 S R 70 - Crayne

3.) CIRCUIT NAME AND NUMBER 1708

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Crayne - S R 70 & Ken Spar - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 9.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 118

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/09/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 58.9%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 41.1%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	1.8
9.1	CIRCUIT 5 YEAR AVERAGE (SAIDI	i)

10.) 2020 SAIDI 2.68

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.02

12.) 2020 SAIFI 0.05

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 247 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	MARION SOUTH
-----	----------------------------	--------------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Crittenden - 505 Chappell Hill Rd - Marion

3.) CIRCUIT NAME AND NUMBER 1710

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Marion - Hwy 60, N Main St, Sturgis Rd, & Old Fords Ferry Rd - N & W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 26.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 901

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/01/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 1.7%

Construction- 0.0%

Lightning- 0.3%

Non-Company- 0.0%

Other/Unknown- 1.2%

Overload- 0.0%

Planned Work- 0.6%

Trees- 13.8%

Utility Equipment- 82.5%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	78.52
3.1 CINCUITS TEAN AVENAGE ISAIDII	/0.32

10.) 2020 SAIDI 97.43

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.88

12.) 2020 SAIFI 1.21

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 248 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	MARION SOUTH
-----	----------------------------	--------------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Crittenden - 505 Chappell Hill Rd - Marion

3.) CIRCUIT NAME AND NUMBER 1712

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Marion - Chapel Hill Rd, Autumn Ln, & Earl Patmore Rd - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 3.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 70

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/01/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 7.9%

Construction- 0.0%

Lightning- 7.1%

Non-Company- 0.0%

Other/Unknown- 85.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 49.99

10.) 2020 SAIDI 224.83

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.56

12.) 2020 SAIFI 2.43

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 249 of 360

1.)	SUBSTATION NAME AND NUMBER	MARION

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Crittenden - 106 Sparmill Rd - Marion

3.) CIRCUIT NAME AND NUMBER 1714

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Marion - E Depot St, E Bellville St, & Old Shady Grove Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 8.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 514

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/01/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.9%

Overload- 0.0%

Planned Work- 63.1%

Trees- 5.2%

Utility Equipment- 0.0%

Vehicle- 30.8%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI	16.39

10.) 2020 SAIDI 24.05

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.21

12.) 2020 SAIFI 0.23

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

Wolfe

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10
Page 250 of 360

1.)	SUBSTATION NAME AND NUMBER	MARION

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Crittenden - 106 Sparmill Rd - Marion

3.) CIRCUIT NAME AND NUMBER 1715

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Marion - Gum St, Mill Rd, Sturgis Rd/Main St - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 9.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 301

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/08/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 4.6%

Overload- 0.0%

Planned Work- 90.0%

Trees- 0.0%

Utility Equipment- 5.4%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	4.20

10.) 2020 SAIDI 3.74

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.06

12.) 2020 SAIFI 0.07

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 251 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	STURGIS 12KV
-----	----------------------------	--------------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Union - 1402 N Washington St - Sturgis

3.) CIRCUIT NAME AND NUMBER 1728

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Sturgis - Hwy 60, King St, Hwy 270, & Hwy 143 - S & N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 46.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 980

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/15/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 7.2%

Construction- 0.0%

Lightning- 20.9%

Non-Company- 0.0%

Other/Unknown- 7.4%

Overload- 0.0%

Planned Work- 1.9%

Trees- 3.5%

Utility Equipment- 16.3%

Vehicle- 42.9%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	) 28.82
σ.	CINCUIT S TEAN AVENAGE (SAIDI)	1 20.0

10.) 2020 SAIDI 30.21

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.24

12.) 2020 SAIFI 0.31

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 252 of 360

1.) SUBSTATION NAME AND NUMBER SI
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Union - 2823 S R 130 S - Morganfield

3.) CIRCUIT NAME AND NUMBER 1731

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Morganfield - S R 130 & Adamson Rd - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 23.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 182

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/29/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 74.1%

Construction- 0.0%

Lightning- 25.3%

Non-Company- 0.0%

Other/Unknown- 0.6%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	21.4
ر. و	CINCUIT 5 TEAN AVENAGE (SAIDI)	/ 21.

10.) 2020 SAIDI 54.85

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.34

12.) 2020 SAIFI 1.08

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 253 of 360

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7 7	v	

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Union - 2823 S R 130 S - Morganfield

3.) CIRCUIT NAME AND NUMBER 1732

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Morganfield - S R 130 - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 31

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/29/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 18.6%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 81.4%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	57.73

10.) 2020 SAIDI 139.81

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.46

12.) 2020 SAIFI 1.38

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 254 of 360

1.)	SUBSTATION NAME AND NUMBER	SUNOCO

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Union - 2823 S R 130 S - Morganfield

3.) CIRCUIT NAME AND NUMBER 1733

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Morganfield - Robinson Rd & US HWY 60 - SSE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 36

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/29/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.7%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 99.3%

Utility Equipment- 0.0%

Vehicle- 0.0%

54.18

10.) 2020 SAIDI	246.27

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.28

12.) 2020 SAIFI 1.03

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

Trees Trimmed in 2020

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 255 of 360

W	n]	lfρ

	Wolfe
1.) SUBSTATION NAME AND NUMBER	MORGANFIELD
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Union - 305 Rhea St - Morganfield
3.) CIRCUIT NAME AND NUMBER	1750
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Morganfield - S R 947, N Chapman St, & Hedge Rd - NW of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	9.2
6.) CUSTOMER COUNT FOR THIS CIRCUIT	286
7.) DATE OF LAST CIRCUIT TRIM (VM)	11/23/2019
8.) 2020 OUTAGES BY CAUSE	
Animal	- 0.0%
Construction	- 0.0%
Lightning	- 0.0%
Non-Company	- 0.0%
Other/Unknown	- 80.9%
Overload	- 0.0%
Planned Work	- 0.0%
Trees	- 19.1%
Utility Equipment	- 0.0%
Vehicle	- 0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	3.18
10.) <b>2020 SAIDI</b>	8.09
11 \ CIDCUIT E VEAD AVEDAGE (SAIEI)	0.04

10.) 2020 SAIDI	8.09
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.04
12.) 2020 SAIFI	0.03

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 256 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	CAMP BRECKINRIDGE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Union - 1820 S Route 2091 - Morganfield

3.) CIRCUIT NAME AND NUMBER 1759

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Morganfield - Marshall Rd, Headquarters Rd, & Patton Rd - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 19.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 255

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/11/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 1.8%

Construction- 0.0%

Lightning- 1.4%

Non-Company- 0.0%

Other/Unknown- 16.1%

Overload- 0.0%

Planned Work- 0.7%

Trees- 4.6%

Utility Equipment- 75.4%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	31.95

10.) 2020 SAIDI 60.33

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.64

12.) 2020 SAIFI 1.71

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 257 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	MORGANFIELD INDUSTRIAL
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Union - 3324 U S HWY 60 E - Morganfield
3.) CIRCUIT NAME AND NUMBER	1761
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Morganfield - Hwy 60 E - W of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	4.0
6.) CUSTOMER COUNT FOR THIS CIRCUIT	39
7.) DATE OF LAST CIRCUIT TRIM (VM)	01/18/2020
8.) 2020 OUTAGES BY CAUSE	
Animal-	- 0.0%
Construction	- 0.0%
Lightning	- 10.9%
Non-Company-	- 0.0%
Other/Unknown	- 89.1%
Overload-	- 0.0%
Planned Work	- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	12.72
10.) 2020 SAIDI	38.38
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.26
12.) 2020 SAIFI	0.82

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 258 of 360

Wolfe

1 )	SUBSTATION NAME AND NUMBER	MORGANFIFI D INDUSTRIAL
1.1	SUBSTATION NAIVIE AIND NUIVIBER	IVIUKGANFIELD INDUSTRIAL

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Union - 3324 U S HWY 60 E - Morganfield

3.) CIRCUIT NAME AND NUMBER 1763

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Morganield - Buchanan Rd - E & W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.2

6.) **CUSTOMER COUNT FOR THIS CIRCUIT** 25

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/18/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 100.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 50.18

10.) 2020 SAIDI 105.90

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40

12.) 2020 SAIFI 1.00

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 259 of 360

1.)	SUBSTATION NAME AND NUMBER	WAVERLY
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Union - 178 Blessed Martin Rd - Waverly

3.) CIRCUIT NAME AND NUMBER 1765

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Waverly - Blessed Martin Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 4

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/18/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	· · · · · · · · · · · · · · · · · · ·	13	.5	2
J.1		· · · · · · · · · · · · · · · · · · ·	ㅗ그		_

10.) 2020 SAIDI 67.62

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.20

12.) 2020 SAIFI 1.00

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

Wolfe

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1.) SUBSTATION NAME AND NUME	ER MANNINGTON
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Christian - 2535 Mannington Loop - Mannington

3.) CIRCUIT NAME AND NUMBER 1801

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Mannington - HWY 407 & US 41- E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 3.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 27

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/14/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 100.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (</b>	(SAIDI)	50.11
و. ر	CINCUIT 3 TEAN AVENAGE (	SAIDI)	30

10.) **2020 SAIDI** 73.83

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.73

12.) 2020 SAIFI 1.00

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

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Wolfe

1.	SUBSTATION NAME AND NUMBER	HARTFORD

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Ohio - 425 Walnut St - Hartford

3.) CIRCUIT NAME AND NUMBER 1911

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Hartford - US HWY 231, Old Main St, HWY 1543- E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 8.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 396

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/18/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 65.8%

Construction- 0.0%

Lightning- 11.1%

Non-Company- 0.0%

Other/Unknown- 6.1%

Overload- 0.0%

Planned Work- 4.1%

Trees- 3.0%

Utility Equipment- 10.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	10.75
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10.) **2020 SAIDI** 10.35

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.16

12.) 2020 SAIFI 0.22

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 262 of 360

Wolfe

T. JODSIA HORITICA HARIEL AND HORIDEN DEAVEN DA	1.)	SUBSTATION NAME AND NUMBER	BEAVER DAM
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Ohio - 310 Ridgecrest Dr. - Beaver Dam

3.) CIRCUIT NAME AND NUMBER 1914

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)**Beaver Dam - Ridge Crest Rd & US Hwy 62 - City of Beaver Dam

5.) TOTAL CIRCUIT LENGTH (MILES) 13.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 528

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/25/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.9%

Construction- 0.0%

Lightning- 11.7%

Non-Company- 0.0%

Other/Unknown- 0.1%

Overload- 0.0%

Planned Work- 1.7%

Trees- 0.4%

Utility Equipment- 1.8%

Vehicle- 83.4%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 39.98

10.) 2020 SAIDI 109.72

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40

12.) 2020 SAIFI 1.21

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 263 of 360

1 )	SUBSTATION NAME AND NUMBER	ATOKA
1.1	3003 I A I I O IN INAIVIE AIND INDIVIDER	ATUKA

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Boyle - 20 Parksville Cross Pike - Danville

3.) CIRCUIT NAME AND NUMBER 2101

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Perryville - City of Perryville & Perryville Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 29.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 585

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/10/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 1.0%

Construction- 0.0%

Lightning- 34.1%

Non-Company- 0.0%

Other/Unknown- 3.0%

Overload- 0.0%

Planned Work- 0.7%

Trees- 57.3%

Utility Equipment- 3.9%

Vehicle- 0.0%

9.	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	35.81

10.) 2020 SAIDI 68.66

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.35

12.) 2020 SAIFI 0.57

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

Trees Trimmed in 2020

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 264 of 360

1.) SUBSTATION NAME AND NUMBER  A
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Boyle - 20 Parksville Cross Pike - Danville

3.) CIRCUIT NAME AND NUMBER 2102

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Danville – Parksville Cross Pike & Lebanon Rd - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 12.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 207

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/10/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 4.3%

Construction- 0.0%

Lightning- 0.7%

Non-Company- 0.0%

Other/Unknown- 50.3%

Overload- 0.0%

Planned Work- 21.0%

Trees- 22.2%

Utility Equipment- 1.5%

Vehicle- 0.0%

9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	36.24

10.) **2020 SAIDI** 34.05

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.20

12.) 2020 SAIFI 0.21

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

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Page 265 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	BUENA VISTA

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Garrard - 164 High Bridge Rd. - Lancaster

3.) CIRCUIT NAME AND NUMBER 2104

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lancaster - High Bridge Rd, Pine Crest Rd, & Camp Dix Rd - NW & SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 35.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 613

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/04/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.6%

Construction- 0.2%

Lightning- 12.6%

Non-Company- 0.0%

Other/Unknown- 66.1%

Overload- 0.0%

Planned Work- 1.9%

Trees- 18.1%

Utility Equipment- 0.0%

Vehicle- 0.5%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	51.70	)
ر. ر	CINCUIT 3 TEAN AVENAGE (SAID)	J1./	·

10.) 2020 SAIDI 76.92

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.71

12.) 2020 SAIFI 1.24

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 266 of 360

1.)	SUBSTATION NAME AND NUMBER	BUENA VISTA
-----	----------------------------	-------------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Garrard - 164 High Bridge Rd. - Lancaster

3.) CIRCUIT NAME AND NUMBER 2106

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lancaster - Kennedy Bridge Rd, Ashley Camp Rd, & Chminey Rock Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 30.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,082

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/03/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 1.2%

Construction- 0.0%

Lightning- 0.3%

Non-Company- 8.0%

Other/Unknown- 1.1%

Overload- 0.0%

Planned Work- 13.4%

Trees- 75.6%

Utility Equipment- 0.0%

Vehicle- 0.4%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 50.04

10.) 2020 SAIDI 60.17

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.50

12.) 2020 SAIFI 0.67

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

Tree Trim Scheduled for 2021

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Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Lincoln - 635 KY HWY 39 N - Crab Orchard

3.) CIRCUIT NAME AND NUMBER 2108

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Crab Orchard - KY 39 - NNW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 9.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 124

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/08/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 47.2%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.3%

Trees- 0.6%

Utility Equipment- 0.0%

Vehicle- 51.9%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 94.01

10.) 2020 SAIDI 328.68

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.94

12.) 2020 SAIFI 3.02

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

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Wolfe

	1, 0==0
1.) SUBSTATION NAME AND NUMBER	DANVILLE E 4KV
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Boyle - 805 East Dr - Danville
3.) CIRCUIT NAME AND NUMBER	2112
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Danville - Stanford Dr, Terrell Dr, & S 2nd St - SW of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	3.3
6.) CUSTOMER COUNT FOR THIS CIRCUIT	168
7.) DATE OF LAST CIRCUIT TRIM (VM)	05/20/2016
8.) 2020 OUTAGES BY CAUSE	
Animal-	0.0%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	18.8%
Overload-	0.0%
Planned Work-	81.3%
Trees-	0.0%
Utility Equipment-	0.0%
Vehicle-	0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	16.21

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 16.21

10.) **2020 SAIDI** 16.19

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.14

12.) **2020 SAIFI** 0.17

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

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Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mercer - 231 N Chiles St - Harrodsburg

3.) CIRCUIT NAME AND NUMBER 2126

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Harrodsburg - W Broadway St, Chiles St, & Hill St - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 3.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 480

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/13/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 51.6%

Overload- 0.0%

Planned Work- 35.0%

Trees- 1.6%

Utility Equipment- 11.7%

Vehicle- 0.0%

10.) 2020 SAIDI 5.41

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.11

12.) 2020 SAIFI 0.11

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

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	HARRODSBURG 1

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mercer - 231 N Chiles St - Harrodsburg

3.) CIRCUIT NAME AND NUMBER 2127

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Harrodsburg - Factory St, N Main St, & Greenville St - N/E/S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 308

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/13/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 100.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	1.95

10.) 2020 SAIDI 3.67

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.02

12.) 2020 SAIFI 0.04

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 271 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	HARRODSBURG 2 4KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mercer - 709 E Office St - Harrodsburg

3.) CIRCUIT NAME AND NUMBER 2128

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Harrodsburg - E Office St & Beaumont Ave - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 437

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/30/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 44.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 29.4%

Trees- 20.7%

Utility Equipment- 6.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 7	.5	) /	1
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10.) 2020 SAIDI 22.03

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.08

12.) 2020 SAIFI 0.27

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

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Wolfe

1.	SUBSTATION NAME AND NUMBER	HARRODSBURG 2 4KV
----	----------------------------	-------------------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mercer - 709 E Office St - Harrodsburg

3.) CIRCUIT NAME AND NUMBER 2129

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Harrodsburg - Cane Run St, N East St, & Cogar Ave - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 3.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 413

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/30/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 1.2%

Overload- 1.3%

Planned Work- 93.3%

Trees- 4.1%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	21.10

10.) 2020 SAIDI 98.72

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.23

12.) 2020 SAIFI 1.08

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

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Wolfe

1.) SUBSTATION NAME AND NUMBER	HARRODSBURG 2 12KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mercer - 709 E Office St - Harrodsburg

3.) CIRCUIT NAME AND NUMBER 2131

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Harrodsburg - Lexington Rd, Burgin Rd, & City of Burgin - NE/SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 42.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 816

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/13/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.2%

Construction- 0.0%

Lightning- 6.1%

Non-Company- 0.1%

Other/Unknown- 8.6%

Overload- 0.0%

Planned Work- 1.3%

Trees- 80.3%

Utility Equipment- 0.3%

Vehicle- 3.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	I) 49.5 <sup>4</sup>

10.) 2020 SAIDI 93.94

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.69

12.) 2020 SAIFI 1.91

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

Tree Trim Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 274 of 360

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**	"	115

1.) SUBSTATION NAM	E AND NUMBER	HARRODSBURG 3
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mercer - 1020 N College St - Harrodsburg

3.) CIRCUIT NAME AND NUMBER 2132

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Harrodsburg - Louisville Rd, Virginia Ave, & Sleepy Hollow Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 24.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 708

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/26/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 1.3%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 88.5%

Overload- 0.0%

Planned Work- 2.6%

Trees- 6.8%

Utility Equipment- 0.8%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 35.55

10.) 2020 SAIDI 100.77

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.41

12.) 2020 SAIFI 1.07

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 275 of 360

Wolfe

1 )	SUBSTATION NAME AND NUMBER	KENTUCKY STATE HOSPITAL
1.1	3003 I A I I O IN INAINIE AIND INDIVIDER	RENIUCKI SIAIE HUSPIIAL

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Boyle - 4180 Shakertown Rd - Danville

3.) CIRCUIT NAME AND NUMBER 2136

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Danville - Shakertown Rd, Gwinn Island Rd, & Spears Ln - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 17.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 340

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/30/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.3%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 11.3%

Overload- 0.0%

Planned Work- 0.6%

Trees- 48.4%

Utility Equipment- 39.3%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	90.23
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10.) 2020 SAIDI 170.34

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.27

12.) 2020 SAIFI 1.99

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 276 of 360

Wolfe

1 )	SUBSTATION NAME AND NUMBER	KENTUCKY STATE HOSPITAL
1.1	3003 I A I I O IN INAINIE AIND INDIVIDER	RENIUCKI SIAIE HUSPIIAL

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Boyle - 4180 Shakertown Rd - Danville

3.) CIRCUIT NAME AND NUMBER 2138

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Danville - Shakertown Rd, Faulkner Ln, & Curdsville Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 33.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 582

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/25/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.7%

Construction- 0.0%

Lightning- 0.6%

Non-Company- 0.0%

Other/Unknown- 8.6%

Overload- 0.0%

Planned Work- 1.7%

Trees- 13.3%

Utility Equipment- 3.0%

Vehicle- 72.2%

91	CIRCUIT 5 YEAR AVERAGE (SAIDI)	59 21	
J.1	CINCOLL STEAM AVENAGE (SAIDI)	JJ.Z1	_

10.) 2020 SAIDI 64.79

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.77

12.) 2020 SAIFI 1.19

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 277 of 360

1.)	SUBSTATION NAME AND NUMBER	LANCASTER 1

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Garrard - 104 Hamilton Ave - Lancaster

3.) CIRCUIT NAME AND NUMBER 2140

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lancaster - Danville St, Campbell St, & Waterworks Rd - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 16.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 844

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/09/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.2%

Overload- 0.0%

Planned Work- 0.0%

Trees- 12.3%

Utility Equipment- 0.1%

Vehicle- 87.4%

9.) CIRCUIT 5 YEAR AVERAGE (SAID	1) 25.9	2
9.) CIRCUII 5 YEAR AVERAGE (SAID	I) 25.7	9

10.) 2020 SAIDI 103.14

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.21

12.) 2020 SAIFI 0.76

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 278 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LANCASTER 1

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Garrard - 104 Hamilton Ave - Lancaster

3.) CIRCUIT NAME AND NUMBER 2141

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lancaster - Richmond St, Cowden Ct, & Hamilton Ave - N/E/SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 358

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/03/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.1%

Overload- 0.0%

Planned Work- 40.3%

Trees- 6.8%

Utility Equipment- 52.9%

Vehicle- 0.0%

9)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	13.89

10.) 2020 SAIDI 25.61

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.30

12.) 2020 SAIFI 1.11

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 279 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER PINE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Rockcastle - 501 Flat Rock Rd - Mt. Vernon

3.) CIRCUIT NAME AND NUMBER 2149

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Mt. Vernon - Wilderness Rd, Limestone - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 8.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 80

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/18/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.5%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 33.9%

Overload- 0.0%

Planned Work- 0.0%

Trees- 64.8%

Utility Equipment- 0.8%

Vehicle- 0.0%

10.) 2020 SAIDI 405.27

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.75

12.) 2020 SAIFI 3.24

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

Trees Trimmed in 2020

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 280 of 360

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1.) SUBSTATION NAME AND NUMBER SALVIS.	1.)	SALVISA
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Mercer - 4455 Louisville Rd - Salvisa

3.) CIRCUIT NAME AND NUMBER 2150

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Salvisa - Main St, Louisville Rd, & Talmage Rd - NW & SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 38.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 679

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/12/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 1.5%

Construction- 0.0%

Lightning- 0.1%

Non-Company- 0.0%

Other/Unknown- 2.4%

Overload- 0.0%

Planned Work- 1.3%

Trees- 21.9%

Utility Equipment- 72.8%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	36.1	14
ر. ر	CINCOLL S LEAN AVENAGE (SAIDI)	JO.,	

10.) 2020 SAIDI 71.26

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.47

12.) 2020 SAIFI 0.80

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 281 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	RICHMOND 3 4KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Madison - 950 Vickers Dr - Richmond

3.) CIRCUIT NAME AND NUMBER 2161

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Richmond - Eastern Byp, Boggs Ln, & Opal Dr - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.6

6.) **CUSTOMER COUNT FOR THIS CIRCUIT** 179

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/18/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 48.6%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 51.4%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAID	35.88

10.) 2020 SAIDI 113.56

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.58

12.) 2020 SAIFI 2.20

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 282 of 360

1.) SI	UBSTATION NAME AND NUMBER	MOUNT VERNON
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Rockcastle - 56 Old Somerset Rd - Mt. Vernon

3.) CIRCUIT NAME AND NUMBER 2166

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Mt. Vernon - Richmond St and Williams St - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 15.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 836

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/08/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 9.3%

Construction- 0.0%

Lightning- 0.5%

Non-Company- 0.0%

Other/Unknown- 7.3%

Overload- 0.0%

Planned Work- 2.5%

Trees- 28.3%

Utility Equipment- 52.2%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	18.36

10.) **2020 SAIDI** 51.95

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.11

12.) 2020 SAIFI 0.29

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

Trees Trimmed in 2020

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 283 of 360

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1.)	SUBSTATION NAME AND NUMBER	CAMPBELLSVILLE 1
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Taylor - 101 Old Greensburg Rd. - Campbellsville

3.) CIRCUIT NAME AND NUMBER 2205

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Campbellsville - HWY 3350 Bypass - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 17.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,224

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/31/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 2.4%

Construction- 0.0%

Lightning- 7.7%

Non-Company- 0.0%

Other/Unknown- 0.2%

Overload- 0.0%

Planned Work- 6.0%

Trees- 6.7%

Utility Equipment- 76.9%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	28.36
9.) CIRCUII 5 YEAR AVERAGE (SAIDI)	20.3

10.) 2020 SAIDI 44.50

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.36

12.) 2020 SAIFI 0.45

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 284 of 360

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1.)	SUBSTATION NAME AND NUMBER	COLUMBIA
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Adair - 114 Lindsey Wilson St - Columbia

3.) CIRCUIT NAME AND NUMBER 2210

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Columbia - Guthrie St, Miller Ave, & Adair Ave - S & SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 150

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/23/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 95.2%

Overload- 0.0%

Planned Work- 2.4%

Trees- 1.3%

Utility Equipment- 1.1%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	17.65
3.) CIRCUIT 3 TEAR AVERAGE (SAIDI)	1/.(

10.) **2020 SAIDI** 59.03

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.25

12.) 2020 SAIFI 0.51

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 285 of 360

1.)	SUBSTATION NAME AND NUMBER	GREENSBURG
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Green - 424 Old Hodgenville Rd - Greensburg

3.) CIRCUIT NAME AND NUMBER 2214

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Greensburg - Buckner Hill Rd, Hawthorne Rd, HWY 1464, & HWY 88 - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 19.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 210

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/31/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.1%

Construction- 0.0%

Lightning- 5.3%

Non-Company- 0.0%

Other/Unknown- 46.2%

Overload- 0.0%

Planned Work- 0.0%

Trees- 47.6%

Utility Equipment- 0.9%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	I) 76.49

10.) 2020 SAIDI 299.08

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.32

12.) 2020 SAIFI 0.78

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 286 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	LEBANON
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Marion - 351 E Water St - Lebanon

3.) CIRCUIT NAME AND NUMBER 2216

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lebanon - MLK Ave, Spalding Ave, Walnut St, & W Main St - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 6.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 621

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/31/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 10.5%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.1%

Overload- 0.0%

Planned Work- 6.6%

Trees- 5.7%

Utility Equipment- 77.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	23.38
و. ر	CIRCUIT 5 TEAR AVERAGE (SAIDI)	۷۵۰۰

10.) 2020 SAIDI 72.47

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.33

12.) 2020 SAIFI 1.22

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

0.16

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 287 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LEBANON SOUTH		
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Marion - 1157 Bradfordsville - Bradfordsville		
3.)	CIRCUIT NAME AND NUMBER	2219		
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Lebanon - Mulberry St, Old Calvary Pike, & Hwy 208 - NW & S of Substation		
5.)	TOTAL CIRCUIT LENGTH (MILES)	12.9		
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	532		
7.)	DATE OF LAST CIRCUIT TRIM (VM)	11/02/2019		
8.)	8.) 2020 OUTAGES BY CAUSE			
	Animal-	5.6%		
	Construction-	0.0%		
	Lightning- 0.0%			
	Non-Company-	0.0%		
	Other/Unknown-	15.6%		
	Overload-	0.0%		
	Planned Work-	6.0%		
	Trees-	34.4%		
	Utility Equipment-	38.5%		
	Vehicle-	0.0%		
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	17.88		
10.)	2020 SAIDI	19.88		
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.18		

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

Continue to Monitor

12.) 2020 SAIFI

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10
Page 288 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER LEBA
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Marion - 1157 Bradfordsville - Bradfordsville

3.) CIRCUIT NAME AND NUMBER 2220

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lebanon - Metts Dr, Hill Creek Rd, & Hamilton Hts - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 160

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/07/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 16.1%

Trees- 0.0%

Utility Equipment- 83.9%

Vehicle- 0.0%

10.) 2020 SAIDI 38.77

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.17

12.) 2020 SAIFI 0.26

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 289 of 360

1.)	SUBSTATION NAME AND NUMBER	RUSSELL SPRINGS
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Russell - 1183 HWY 1870 - Russell Springs

3.) CIRCUIT NAME AND NUMBER 2221

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Russell Springs - Old Columbia Rd & Providence Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 12.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 139

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/31/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.8%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.3%

Overload- 0.0%

Planned Work- 0.0%

Trees- 98.0%

Utility Equipment- 1.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	74.08

10.) 2020 SAIDI 178.02

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.82

12.) 2020 SAIFI 2.46

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 290 of 360

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1.	) SUBSTATION NAME AND NUMBER	SPRINGFIELD

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Washinton - 107 Commercial Ave - Springfield

3.) CIRCUIT NAME AND NUMBER 2226

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Springfield - State HWY 55 & Bloomfield Rd - S & N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 37.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 366

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/27/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 1.6%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 2.7%

Overload- 0.0%

Planned Work- 1.2%

Trees- 92.8%

Utility Equipment- 1.7%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	33.00
ر. ر	CINCOLL 2 LEAN AVENAGE (SAID)	33.00

10.) 2020 SAIDI 61.48

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.21

12.) 2020 SAIFI 0.28

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 291 of 360

Wolfe

	1.)	SUBSTATION NAME AND NUMBER	WOODLAWN
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Nelson – 285 Spencer Mattingly Ln. – Bardstown

3.) CIRCUIT NAME AND NUMBER 2232

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Bardstown - My Old KY Home St Park & Gilkey Run Rd - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 6.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 132

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/13/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 2.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 66.2%

Overload- 0.0%

Planned Work- 3.1%

Trees- 28.7%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 90.63

10.) 2020 SAIDI 80.83

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.75

12.) 2020 SAIFI 1.03

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

### Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 292 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LEBANON WEST

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Marion - 2255 Saint Mary's Rd - St Mary

3.) CIRCUIT NAME AND NUMBER 2235

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** St Mary - Warehouse Rd & Campbellsville Rd - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 7.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 219

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/16/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 25.2%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 55.5%

Trees- 0.0%

Utility Equipment- 19.3%

Vehicle- 0.0%

1.91

10.) 2020 SAIDI 2.92

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.03

12.) 2020 SAIFI 0.07

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 293 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LEBANON INDUSTRIAL
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Marion - 700 Corporate Dr - Lebanon

3.) CIRCUIT NAME AND NUMBER 2236

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lebanon - Corporate Dr - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) No Trimming Necessary

8.) 2020 OUTAGES BY CAUSE

Animal- 28.1%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 71.9%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 329.03

10.) 2020 SAIDI 775.13

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.75

12.) 2020 SAIFI 2.00

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 294 of 360

Wolfe

1.) S	SUBSTATION NAME AND NUMBER	BEATTYVILLE 4KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Lee - 950 W Main St. - Beattyville

3.) CIRCUIT NAME AND NUMBER 2301

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)**Beattyville - W Main St, Lee Ave, & Grand Ave - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 8.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 234

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/21/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 23.2%

Overload- 0.0%

Planned Work- 15.1%

Trees- 61.7%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	25.59

10.) 2020 SAIDI 41.69

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.18

12.) 2020 SAIFI 0.41

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 295 of 360 Wolfe

1.) SUBSTATION NAME AND NUMBER	OKONITE
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Madison - 1742 Berea Rd - Richmond
3.) CIRCUIT NAME AND NUMBER	2306
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Richmond - Berea Rd - N of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	2.4
6.) CUSTOMER COUNT FOR THIS CIRCUIT	24
7.) DATE OF LAST CIRCUIT TRIM (VM)	09/28/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 16.8%

Overload- 0.0%

Planned Work- 0.0%

Trees- 83.2%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	14.11
10.) 2020 SAIDI	25.85
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.21
12.) 2020 SAIFI	0.29

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 296 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	PAINT LICK
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Garrard - 11811 HWY 52 E - Paint Lick
3.) CIRCUIT NAME AND NUMBER	2309
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Paint Lick - HWY 52, Kirksville Rd, & Curtis Pike - N of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	18.0
6.) CUSTOMER COUNT FOR THIS CIRCUIT	308
7.) DATE OF LAST CIRCUIT TRIM (VM)	04/18/2020
8.) 2020 OUTAGES BY CAUSE	
Animal	- 0.3%
Construction	- 0.0%
Lightning	- 0.0%
Non-Company	- 0.0%
Other/Unknown	- 0.0%
Overload	- 0.0%

Trees- 98.8%

Utility Equipment- 0.6%

Planned Work- 0.3%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	129.41
10.) 2020 SAIDI	235.85
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.68
12.) 2020 SAIFI	0.67

 $13.) \;\; \mbox{LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN}$ 

# Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10

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1.)	SUBSTATION NAME AND NUMBER	PAINT LICK
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Garrard - 11811 HWY 52 E - Paint Lick
3.)	CIRCUIT NAME AND NUMBER	2310
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Paint Lick - HWY 52, White Lick Rd, & Noe Rd - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	9.6
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	139
7.)	DATE OF LAST CIRCUIT TRIM (VM)	04/18/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	10.8%
	Construction-	0.0%
	Lightning-	1.7%
	Non-Company-	0.0%
	Other/Unknown-	1.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	86.4%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	47.91
10.)	2020 SAIDI	51.32
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.35
12.)	2020 SAIFI	0.34

 $13.) \ \ \text{LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN}$ 

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 298 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	RED HOUSE
	CODO IN LITERAL TO LIT	ILED HOUSE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Madison - 3858 Boonesboro Rd - Richmond

3.) CIRCUIT NAME AND NUMBER 2311

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Richmond - Lost Fork Rd, Red House Rd, & Boonesboro Rd - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 9.4

6.) **CUSTOMER COUNT FOR THIS CIRCUIT** 96

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/16/2021

8.) 2020 OUTAGES BY CAUSE

Animal- 0.2%

Construction- 0.0%

Lightning- 1.5%

Non-Company- 0.0%

Other/Unknown- 20.2%

Overload- 0.0%

Planned Work- 0.0%

Trees- 78.2%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	ı) 48.78
ر. ر	CINCUIT S TEAN AVENAGE (SAID	1) <del>1</del> 0.7

10.) 2020 SAIDI 96.41

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.36

12.) 2020 SAIFI 0.87

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 299 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	RICHMOND SOUTH
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Madison - 464 Eastern Bypass - Richmond
3.) CIRCUIT NAME AND NUMBER	2323
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Richmond - S Killarney Dr, Barnes Mill Rd, & Martin Dr - NW of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	5.3
6.) CUSTOMER COUNT FOR THIS CIRCUIT	659
7.) DATE OF LAST CIRCUIT TRIM (VM)	12/28/2019
8.) 2020 OUTAGES BY CAUSE	
Animal	- 1.8%
Construction-	- 0.0%
Lightning-	- 1.4%
Non-Company-	- 0.0%
Other/Unknown-	- 11.9%

Planned Work- 0.9%

Overload- 0.0%

Trees- 72.2%

Utility Equipment- 11.7%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	13.49
10.) <b>2020 SAIDI</b>	11.07
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.17
12.) 2020 SAIFI	0.17

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 300 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	RICHMOND 1

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Madison - 315 Clay Dr - Richmond

3.) CIRCUIT NAME AND NUMBER 2325

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Richmond - US 25, Keeneland Dr, & Jacks Creek Rd - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 356

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/22/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 97.7%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.8%

Trees- 0.0%

Utility Equipment- 1.5%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	1) 34.49	)
ر. ر	CINCOLL 3 LEAN AVENAGE (SAID	i) JT.T.	_

10.) **2020 SAIDI** 49.68

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.34

12.) 2020 SAIFI 0.53

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 301 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	ELIZABETHTOWN 3	
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Hardin - 100 Crucible Steel Rd - Elizabethtown	
3.) CIRCUIT NAME AND NUMBER	2332	
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Elizabethtown - Leitchfield Rd, Blackbranch Rd, & Nicholas St - SW of Substation	
5.) TOTAL CIRCUIT LENGTH (MILES)	18.6	
6.) CUSTOMER COUNT FOR THIS CIRCUIT	873	
7.) DATE OF LAST CIRCUIT TRIM (VM)	01/23/2021	
8.) 2020 OUTAGES BY CAUSE		
Animal	- 37.7%	
Construction-	- 0.8%	
Lightning	- 19.1%	
Non-Company- 0.0%		
Other/Unknown- 1.0%		
Overload	- 0.0%	

Trees- 0.0%

Planned Work- 37.3%

Utility Equipment- 4.1%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	9.96
10.) <b>2020 SAIDI</b>	8.45
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.12
12.) <b>2020 SAIFI</b>	0.15

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

Wolfe

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1.)	SUBSTATION NAME AND NUMBER	NEW HAVEN
-----	----------------------------	-----------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Nelson - 256 Lyons Station Rd - New Haven

3.) CIRCUIT NAME AND NUMBER 2333

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)**New Haven - Center St, First St, & Depot St - SE of substation

5.) TOTAL CIRCUIT LENGTH (MILES) 1.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 150

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/11/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 14.1%

Construction- 85.9%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	5.62
9.1	CIRCUIT 5 YEAR AVERAGE (SAIDI)	) 5.0

10.) 2020 SAIDI 6.85

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.11

12.) 2020 SAIFI 0.15

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

0.17

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Wolfe

1.) SUBSTATION NAME AND NUMBER	RINEYVILLE
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOW	N) Hardin - Rineyville Big Springs Rd - Radcliff
3.) CIRCUIT NAME AND NUMBER	2334
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Radcliff - Rineyville Big Springs Rd & Rineyville Rd - SW of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	26.4
6.) CUSTOMER COUNT FOR THIS CIRCUIT	744
7.) DATE OF LAST CIRCUIT TRIM (VM)	06/22/2019
8.) 2020 OUTAGES BY CAUSE	
Anir	nal- 8.6%
Construct	on- 0.0%
Lightn	ng- 3.2%
Non-Compa	ny- 0.0%
Other/Unkno	wn- 3.5%
Overlo	ad- 0.0%
Planned W	ork- 0.7%
Tr	ees- 84.1%
Utility Equipme	ent- 0.0%
Veh	cle- 0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	22.72
10.) <b>2020 SAIDI</b>	29.20
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.22

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

Continue to Monitor

12.) 2020 SAIFI

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1.	SUBSTATION NAME AND NUMBER	BOSTON

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Nelson - 1100 Old Nelsonville Rd. - Boston

3.) CIRCUIT NAME AND NUMBER 2402

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lebanon Junction - City of Lebanon Junction - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 15.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 709

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/04/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.6%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 80.5%

Trees- 13.5%

Utility Equipment- 2.1%

Vehicle- 3.2%

9.) CIRCU	T 5 YEAR AVERAGE (SAIDI)	45.2
9.) CIRCU	I D TEAK AVEKAGE (SAIDI)	45.4

10.) 2020 SAIDI 64.55

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.58

12.) 2020 SAIFI 1.06

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 305 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	BOSTON
-----	----------------------------	--------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Nelson - 1100 Old Nelsonville Rd. - Boston

3.) CIRCUIT NAME AND NUMBER 2403

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Boston - Lebanon Junction Rd, Boston Rd, KY 52 & Nelsonville Rd - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 29.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 345

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/11/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 1.6%

Construction- 2.4%

Lightning- 2.8%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 1.7%

Trees- 89.1%

Utility Equipment- 2.5%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	60.	77
J.,	CINCOIL S LEAN AVENAGE (SAID)	, 00.	

10.) **2020 SAIDI** 72.64

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.54

12.) 2020 SAIFI 1.10

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

Tree Trim Scheduled for 2021

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	CLARKSON

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Grayson - 405 Peonia Rd - Clarkson

3.) CIRCUIT NAME AND NUMBER 2405

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Leitchfield - Farmview Ln, Hwy 3155, & Grayson Springs Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 7.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 135

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/01/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 63.4%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 36.6%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	3.5	0	
ا . ا	CINCUIT 5 TEAN AVENAGE (SAIDI)	J.,	J	טכ

10.) 2020 SAIDI 5.47

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.05

12.) 2020 SAIFI 0.07

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

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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hardin - 12540 Sonora - Hardin Springs

3.) CIRCUIT NAME AND NUMBER 2408

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Sonora - W Main St, Skees St, & St. Paul Rd - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 39.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 601

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/21/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.5%

Construction- 0.0%

Lightning- 0.2%

Non-Company- 0.0%

Other/Unknown- 1.0%

Overload- 0.2%

Planned Work- 2.5%

Trees- 0.0%

Utility Equipment- 95.5%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (</b>	SAIDI)	37.46
٠.,	CINCOLL S LEAN AVENAGE (		J/. <del>-</del>

10.) 2020 SAIDI 60.14

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.53

12.) 2020 SAIFI 0.70

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

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	ELIZABETHTOWN 2
-----	----------------------------	-----------------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hardin - 1011 Woodland Dr - Elizabethtown

3.) CIRCUIT NAME AND NUMBER 2415

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Elizabethtown - Woodland Dr, Saint John Rd, & Westport Rd - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 8.4

6.) **CUSTOMER COUNT FOR THIS CIRCUIT** 549

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/07/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 9.8%

Non-Company- 0.0%

Other/Unknown- 85.3%

Overload- 0.0%

Planned Work- 4.6%

Trees- 0.0%

Utility Equipment- 0.3%

Vehicle- 0.0%

29.95
,

10.) 2020 SAIDI 48.12

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.75

12.) 2020 SAIFI 1.09

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

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	ELIZABETHTOWN 4
-----	----------------------------	-----------------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hardin - 201 Sportsman Lake Rd - Elizabethtown

3.) CIRCUIT NAME AND NUMBER 2418

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Elizabethtown - Dixie Hwy, New Glendale Rd, & Nicholas St - W & SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 19.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 517

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/30/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.4%

Overload- 0.0%

Planned Work- 6.3%

Trees- 1.5%

Utility Equipment- 91.7%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAID	35.42

10.) **2020 SAIDI** 59.50

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.26

12.) 2020 SAIFI 0.44

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 310 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	ELIZABETHTOWN 4
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Hardin - 201 Sportsman Lake Rd - Elizabethtown
3.) CIRCUIT NAME AND NUMBER	2419
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Elizabethtown - Sportsman Lake Rd & Hodenville Rd - SE of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	23.1
6.) CUSTOMER COUNT FOR THIS CIRCUIT	730
7.) DATE OF LAST CIRCUIT TRIM (VM)	05/16/2020
8.) 2020 OUTAGES BY CAUSE	
Animal-	3.6%
Construction-	2.6%
Lightning-	1.2%
Non-Company-	0.0%
Other/Unknown-	12.5%
Overload-	0.0%
Planned Work-	52.3%
Trees-	9.6%
Utility Equipment-	18.1%
Vehicle-	0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	10.31
10.) 2020 SAIDI	12.05
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.19
12.) 2020 SAIFI	0.16

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 311 of 360

1.)	SUBSTATION NAME AND NUMBER	ELIZABETHTOWN 5
4.1	30031A110N NAME AND NOMBLE	LLIZABLIIIOWN J

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hardin - 800 N Mulberry St - Elizabethtown

3.) CIRCUIT NAME AND NUMBER 2422

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Elizabethtown - KY 61/62, Navaho Dr, & Ring Rd - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 360

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/09/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 18.9%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 65.4%

Trees- 15.2%

Utility Equipment- 0.0%

Vehicle- 0.5%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	28.96
J.	CINCOLL S LEAN AVENAGE (SAID)	1 20.30

10.) 2020 SAIDI 35.49

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.42

12.) 2020 SAIFI 0.47

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

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	ELIZABETHTOWN 5
-----	----------------------------	-----------------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hardin - 800 N Mulberry St - Elizabethtown

3.) CIRCUIT NAME AND NUMBER 2423

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Elizabethtown - Brooks Str, N Main St, & Guthrie St - S & E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 564

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/14/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 2.4%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 56.2%

Overload- 0.0%

Planned Work- 13.9%

Trees- 10.2%

Utility Equipment- 17.2%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	42.61

10.) 2020 SAIDI 116.58

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.57

12.) 2020 SAIFI 2.49

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

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Wolfe

1.) SUBSTATION NAME AND NUMBER	ELIZABETHTOWN WEST

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hardin - 300 College Street Rd - Elizabethtown

3.) CIRCUIT NAME AND NUMBER 2425

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Elizabethtown - College Street Rd - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 2

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/06/2021

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 100.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	15.02

10.) 2020 SAIDI 10.04

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.27

12.) 2020 SAIFI 0.33

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 314 of 360

Wolfe

1 )	SUBSTATION NAME AND NUMBER	ELIZABETHTOWN WEST
1.1	SUBSTATION NAIVIE AND NUIVIDER	ELIZABETHTOWN WEST

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hardin - 300 College Street Rd - Elizabethtown

3.) CIRCUIT NAME AND NUMBER 2427

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Elizabethtown - Peterson Dr, Geoargetown Rd, & Leitchfield Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 261

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/06/2021

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 93.8%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 6.2%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	76.70
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10.) 2020 SAIDI 145.60

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.87

12.) 2020 SAIFI 2.08

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 315 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	HORSE CAVE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hart - 501 Shewey Ave - Horse Cave

3.) CIRCUIT NAME AND NUMBER 2433

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Horse Cave - W Main St, KY 335, New St, US 31 - N & NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 22.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 887

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/10/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 93.7%

Overload- 0.0%

Planned Work- 0.7%

Trees- 0.0%

Utility Equipment- 0.3%

Vehicle- 5.3%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	26.80
J.	CINCOLL S LEAN AVENAGE (SAID)	1 20.00

10.) 2020 SAIDI 72.52

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.25

12.) 2020 SAIFI 0.59

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 316 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	HORSE CAVE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hart - 501 Shewey Ave - Horse Cave

3.) CIRCUIT NAME AND NUMBER 2435

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Horse Cave - E Main St, KY 218, & US HWY 31 E - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 18.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 373

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/15/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 29.7%

Construction- 1.3%

Lightning- 36.5%

Non-Company- 0.0%

Other/Unknown- 12.5%

Overload- 0.0%

Planned Work- 0.0%

Trees- 5.7%

Utility Equipment- 0.0%

Vehicle- 14.3%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	28.5	7
J.	CINCOLL S LEAN AVENAGE (SAID)	1 20.3	,

10.) 2020 SAIDI 49.23

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.28

12.) 2020 SAIFI 0.55

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 317 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	HORSE CAVE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hart - 501 Shewey Ave - Horse Cave

3.) CIRCUIT NAME AND NUMBER 2436

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Hiseville - Old Glasgow Rd & Hiseville Main St - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 28.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 356

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/01/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.6%

Construction- 0.0%

Lightning- 10.7%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.5%

Trees- 28.2%

Utility Equipment- 60.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 92.42

10.) 2020 SAIDI 160.75

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.66

12.) 2020 SAIFI 1.40

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 318 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	MILLWOOD
	, 55551711151111711112711121115211	IVIILLIVOOD

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Grayson - 6649 Beaver Dam Rd - Millwood

3.) CIRCUIT NAME AND NUMBER 2441

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Millwood - US HWY 62, School House Rd, & Rock Quarry Rd - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 11.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 171

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/27/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 44.8%

Non-Company- 0.0%

Other/Unknown- 8.6%

Overload- 0.0%

Planned Work- 39.1%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 7.4%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	5.66
3.1 CIRCUII 3 TEAR AVERAGE ISAIDII	3.00

10.) **2020 SAIDI** 4.88

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.06

12.) 2020 SAIFI 0.09

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 319 of 360 Wolfe

1.)	SUBSTATION NAME AND NUMBER	NEW HAVEN
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Nelson - 256 Lyons Station Rd - New Haven

3.) CIRCUIT NAME AND NUMBER 2444

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) New Haven - 3rd St, Center St, New Hope Rd, & Rogers Rd - ESE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 24.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 572

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/02/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.5%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.4%

Other/Unknown- 0.2%

Overload- 0.0%

Planned Work- 2.4%

Trees- 2.5%

Utility Equipment- 10.0%

Vehicle- 84.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 74.90

10.) 2020 SAIDI 101.96

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.83

12.) 2020 SAIFI 1.18

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 320 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	RIO
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hart - 301 Glen Lily Rd E - Munfordville

3.) CIRCUIT NAME AND NUMBER 2451

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Munfordville - E US 31, S Jackson HWY & J McGuire Rd - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 16.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 252

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/14/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 1.5%

Construction- 0.4%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 16.5%

Overload- 0.0%

Planned Work- 0.3%

Trees- 76.4%

Utility Equipment- 4.9%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 55.65

10.) 2020 SAIDI 173.42

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40

12.) 2020 SAIFI 0.94

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10
Page 321 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SONORA
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hardin - 1340 Old Sonora Rd - Sonora

3.) CIRCUIT NAME AND NUMBER 2457

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Sonora - Sonora Hardin Springs Rd, Nolin Rd, Gilead Church Rd, & KY 222 - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 24.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 496

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/10/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.4%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 17.5%

Overload- 0.0%

Planned Work- 0.3%

Trees- 9.5%

Utility Equipment- 1.5%

Vehicle- 70.8%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	35.10

10.) 2020 SAIDI 49.25

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.29

12.) 2020 SAIFI 0.40

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 322 of 360

Wolfe

1.) SODSTATION NAME AND NOMBER SONOW	1.)	SUBSTATION NAME AND NUMBER	SONORA
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hardin - 1340 Old Sonora Rd - Sonora

3.) CIRCUIT NAME AND NUMBER 2458

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Sonora - Maple St, US 31, & City of Upton - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 17.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 492

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/10/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 2.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 5.5%

Overload- 0.0%

Planned Work- 27.9%

Trees- 29.3%

Utility Equipment- 35.4%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	71.07

10.) **2020 SAIDI** 22.32

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.69

12.) 2020 SAIFI 1.29

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 323 of 360

Wolfe

1.) JODSIA HORINE ARD HORIDER	1.)	SUBSTATION NAME AND NUMBER	VINE GROVE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hardin - 108 Crutcher St - Vine Grove

3.) CIRCUIT NAME AND NUMBER 2459

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Vine Grove - Park St, Edgebrook Dr, Brown St, & 1st St - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 8.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 530

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/21/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 42.1%

Overload- 0.0%

Planned Work- 3.6%

Trees- 1.9%

Utility Equipment- 52.4%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	1) 45.29	)
٠.,	CINCOLL S LEAN AVENAGE (SAID	1) TJ.2.	_

10.) 2020 SAIDI 115.62

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.55

12.) 2020 SAIFI 1.24

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 324 of 360

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1.) SUBSTATION NAME AND NUMBER	LEITCHFIELD EAST
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Grayson - 705 Wallace Ave - Leitchfield
3.) CIRCUIT NAME AND NUMBER	2465
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Leitchfield - Mill St, Lee Ave, & Grayson Springs Rd - N of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	6.3
6.) CUSTOMER COUNT FOR THIS CIRCUIT	380
7.) DATE OF LAST CIRCUIT TRIM (VM)	04/01/2017
8.) 2020 OUTAGES BY CAUSE	
Animal	3.3%
Construction-	2.0%
Lightning-	• 51.4%
Non-Company-	0.0%
Other/Unknown-	0.0%
Overload-	0.0%
Planned Work-	0.0%
Trees-	15.6%
Utility Equipment-	27.7%
Vehicle-	0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	24.56
10.) <b>2020 SAIDI</b>	27.32
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.32

J. CINCOTT S TEAN AVENAGE (SAIDT)	24.50
10.) 2020 SAIDI	27.32
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.32
12.) 2020 SAIFI	0.20

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 325 of 360

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1.)	SUBSTATION NAME AND NUMBER	RADCLIFF SOUTH
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hardin - 100 Energy Dr - Radcliff

3.) CIRCUIT NAME AND NUMBER 2471

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Hardin - S Wilson Rd & Medical Center Dr - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 3.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 106

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/06/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 82.7%

Other/Unknown- 14.1%

Overload- 0.0%

Planned Work- 0.5%

Trees- 0.0%

Utility Equipment- 1.1%

Vehicle- 1.6%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	I) 52.5	6

10.) 2020 SAIDI 243.73

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.35

12.) 2020 SAIFI 1.36

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 326 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	LA GRANGE E 12KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Oldham - 1810 E Highway 146 - La Grange

3.) CIRCUIT NAME AND NUMBER 2472

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** La Grange - Jericho Rd, Adams St, 1st St, Hwy 53, & Zale Smith Ln - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 29.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 943

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/16/2021

8.) 2020 OUTAGES BY CAUSE

Animal- 1.0%

Construction- 0.0%

Lightning- 51.2%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 33.7%

Utility Equipment- 14.1%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (</b>	(SAIDI)	23.08

10.) 2020 SAIDI 78.27

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.22

12.) 2020 SAIFI 0.64

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

Trees Trimmed in 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 327 of 360

Wolfe

1 )	SUBSTATION NAME AND NUMBER	HORSE CAVE INDUSTRIAL
1.1	3003 I A I ION MAINE AND MUNICE	DURSE CAVE INDUSTRIAL

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hart - 400 Cherry St - Horse Cave

3.) CIRCUIT NAME AND NUMBER 2473

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Horse Cave - Old Dixie Hwy - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 3

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/29/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 23.8%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 76.2%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	46.03
9.1	CIRCUIT 5 YEAR AVERAGE (SAIDI)	1 40

10.) 2020 SAIDI 94.05

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.30

12.) 2020 SAIFI 0.67

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

# Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 328 of 360

0.36

Wolfe

1.) SUBSTATION NAME AND NUMBER	BLACK BRANCH
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Hardin - 1220 N Black Branch Rd - Elizabethtown
3.) CIRCUIT NAME AND NUMBER	2477
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Elizabethtown - City of Elizabethtown, W Main St, & St. Paul Rd- NE & SW of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	23.2
6.) CUSTOMER COUNT FOR THIS CIRCUIT	675
7.) DATE OF LAST CIRCUIT TRIM (VM)	05/18/2019
8.) 2020 OUTAGES BY CAUSE	
Animal	- 2.0%
Construction	- 0.0%
Lightning	- 0.0%
Non-Company	- 0.0%
Other/Unknown	- 87.4%
Overload	- 0.0%
Planned Work	- 1.6%
Trees	- 0.0%
Utility Equipment	- 9.0%
Vehicle	- 0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	26.31
10.) <b>2020 SAIDI</b>	28.22
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.87

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

Continue to Monitor

12.) 2020 SAIFI

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 329 of 360

1.)	SUBSTATION NAME AND NUMBER	FLORIDA TILE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Anderson - 1247 Alton Rd - Lawrenceburg

3.) CIRCUIT NAME AND NUMBER 2505

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lawrenceburg - Alton Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 15.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 639

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/21/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 1.3%

Construction- 0.0%

Lightning- 0.9%

Non-Company- 0.0%

Other/Unknown- 4.0%

Overload- 0.0%

Planned Work- 0.5%

Trees- 0.6%

Utility Equipment- 92.7%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAID	57.81

10.) **2020 SAIDI** 86.55

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.49

12.) 2020 SAIFI 1.09

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 330 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LA GRANGE E 12KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Oldham - 1810 E Highway 146 - La Grange

3.) CIRCUIT NAME AND NUMBER 2509

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** La Grange - Grange Dr, Hwy 53, & Hwy 22 - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 71.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,968

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/12/2015

8.) 2020 OUTAGES BY CAUSE

Animal- 0.1%

Construction- 0.1%

Lightning- 0.3%

Non-Company- 0.0%

Other/Unknown- 88.1%

Overload- 0.0%

Planned Work- 0.7%

Trees- 10.1%

Utility Equipment- 0.6%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 66.86

10.) 2020 SAIDI 224.28

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.44

12.) 2020 SAIFI 1.02

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 331 of 360

Wolfe

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1.)	SUBSTATION NAME AND NUMBER	LAGRANGE PENAL

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Oldham - 3011 W Highway 146 - La Grange

3.) CIRCUIT NAME AND NUMBER 2512

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** La Grange - W Highway 146 - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) No Trimming Necessary

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 78.53

10.) 2020 SAIDI 190.67

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.60

12.) 2020 SAIFI 2.00

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 332 of 360

Wolfe

1.) 9	SUBSTATION NAME AND NUMBER	LAGRANGE PENAL
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Oldham - 3011 W Highway 146 - La Grange

3.) CIRCUIT NAME AND NUMBER 2513

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) La Grange - HWY 146, Jefferson St, & Allen Ln - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 24.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,500

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/31/2021

8.) 2020 OUTAGES BY CAUSE

Animal- 4.1%

Construction- 0.0%

Lightning- 12.3%

Non-Company- 0.0%

Other/Unknown- 0.5%

Overload- 0.0%

Planned Work- 0.0%

Trees- 66.6%

Utility Equipment- 6.5%

Vehicle- 10.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	31.72	2
ر. ر	CINCOLL 2 LEAN AVENAGE (SAID)	J1./	L

10.) 2020 SAIDI 51.16

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.27

12.) 2020 SAIFI 0.42

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

Trees Trimmed in 2021

### Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 333 of 360

0.40

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LAWRENCEBURG 12KV
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Anderson - 108 E Broadway st - Lawrenceburg
3.)	CIRCUIT NAME AND NUMBER	2516
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Lawrenceburg - Main St - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	38.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,384
7.)	DATE OF LAST CIRCUIT TRIM (VM)	08/13/2016
8.)	2020 OUTAGES BY CAUSE	
	Animal-	3.4%
	Construction-	0.0%
	Lightning-	4.7%
	Non-Company-	0.0%
	Other/Unknown-	9.1%
	Overload-	0.0%
	Planned Work-	5.9%
	Trees-	56.7%
	Utility Equipment-	20.0%
	Vehicle-	0.2%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	45.86
10.)	2020 SAIDI	68.52
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.43

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

Tree Trim Scheduled for 2021

12.) 2020 SAIFI

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 334 of 360 Wolfe

1.) SUBSTATION NAME AND NUMBER	LAWRENCEBURG 12KV

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Anderson - 108 E Broadway st - Lawrenceburg

3.) CIRCUIT NAME AND NUMBER 2517

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Lawrenceburg - Industry Rd & Tyron Rd - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 10.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 176

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/31/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 2.2%

Non-Company- 0.9%

Other/Unknown- 4.7%

Overload- 0.0%

Planned Work- 0.0%

Trees- 75.9%

Utility Equipment- 16.4%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	32.71
10.) 2020 SAIDI	72.89
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.31
12.) <b>2020 SAIFI</b>	0.36

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

Tree Trim Scheduled for 2021

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 1	
	Page 335 of 360
	Wolfe
1.) SUBSTATION NAME AND NUMBER	LAWRENCEBURG 12KV
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Anderson - 108 E Broadway st - Lawrenceburg

3.) CIRCUIT NAME AND NUMBER 2518

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Lawrenceburg - Waterfill Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 12.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 987

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/02/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 2.0%

Construction- 0.0%

Lightning- 0.8%

Non-Company- 0.0%

Other/Unknown- 0.9%

Overload- 0.0%

Planned Work- 5.6%

Trees- 52.2%

Utility Equipment- 38.5%

Vehicle- 0.0%

20 47

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

Tree Trim Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 336 of 360

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1.)	SUBSTATION NAME AND NUMBER	SHELBYVILLE 12KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Shelby - 1201 Willow St - Shelbyville

3.) CIRCUIT NAME AND NUMBER 2521

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Shelbyville - Walnut St, 10th St, Henry Clay St, & Beechwood Ave - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 704

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/05/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 1.6%

Non-Company- 0.2%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 76.4%

Trees- 10.8%

Utility Equipment- 11.0%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI	14.84

10.) **2020 SAIDI** 39.09

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.10

12.) 2020 SAIFI 0.24

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 337 of 360

a \		
1.1	SUBSTATION NAME AND NUMBER	SHELBYVILLE EAST

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Shelby - 183 Boone Station Rd - Shelbyville

3.) CIRCUIT NAME AND NUMBER 2522

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Shelbyville - KY 60, HWY 395, & Benson Pike - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 54.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,684

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/16/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 14.5%

Construction- 10.3%

Lightning- 0.1%

Non-Company- 0.0%

Other/Unknown- 0.6%

Overload- 0.0%

Planned Work- 9.8%

Trees- 37.5%

Utility Equipment- 2.2%

Vehicle- 25.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	1) 88.34

10.) 2020 SAIDI 90.68

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.21

12.) 2020 SAIFI 1.55

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 338 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SHELBYVILLE SOUTH
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Shelby - 614 Mack Walters Rd - Shelbyville

3.) CIRCUIT NAME AND NUMBER 2525

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Shelbyville - Medical Ave, Shelby House Apt, & Village Ln - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 3.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 464

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/05/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 100.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (	SAIDI)	10.43
9.1	CIRCUIT 5 YEAR AVERAGE (	SAIDI)	10.4

10.) 2020 SAIDI 24.54

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.13

12.) 2020 SAIFI 0.31

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

# Case No. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10

0.55

0.47

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	vv one
1.) SUBSTATION NAME AND NUMBER	SIMPSONVILLE
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Shelby - 6801 Shelbyville Rd - Simpsonville
3.) CIRCUIT NAME AND NUMBER	2528
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Simpsonville - Shelbyville Rd, Champions Way, Veechdale Rd & Hwy 60 - SW & E of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	24.2
6.) CUSTOMER COUNT FOR THIS CIRCUIT	285
7.) DATE OF LAST CIRCUIT TRIM (VM)	04/13/2019
8.) 2020 OUTAGES BY CAUSE	
Animal	- 0.6%
Construction	- 0.0%
Lightning	- 0.0%
Non-Company	- 0.0%
Other/Unknown	- 0.0%
Overload	- 0.0%
Planned Work	- 5.8%
Trees	- 93.5%
Utility Equipment	- 0.0%
Vehicle	- 0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	53.97
10.) 2020 SAIDI	109.54

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

Continue to Monitor

12.) **2020 SAIFI** 

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 340 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER LOCKPORT

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Henry - 88 Sawmill Rd - Bethlehem

3.) CIRCUIT NAME AND NUMBER 2531

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)

Bethlehem - KY 22, KY 389 & Six Mile Creek Rd - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 13.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 167

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/22/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 94.1%

Non-Company- 1.2%

Other/Unknown- 1.1%

Overload- 0.0%

Planned Work- 1.0%

Trees- 2.7%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 155.79

10.) 2020 SAIDI 120.02

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.97

12.) 2020 SAIFI 1.08

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 341 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	LOCKPORT
_⊥.,	SODSTATION NAME AND NOMBER	LUCKPUI

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Henry - 88 Sawmill Rd - Bethlehem

3.) CIRCUIT NAME AND NUMBER 2532

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Bethlehem - KY 22, Hwy 1360, Sewell Rd, & Bethlehem Rd - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 53.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 952

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/24/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.1%

Construction- 0.0%

Lightning- 32.8%

Non-Company- 0.0%

Other/Unknown- 3.8%

Overload- 0.0%

Planned Work- 1.4%

Trees- 48.8%

Utility Equipment- 12.8%

Vehicle- 0.1%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	102.11

10.) **2020 SAIDI** 62.52

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.06

12.) 2020 SAIFI 1.10

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

Tree Trim Scheduled for 2021

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 342 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	SHELBYVILLE SOUTH
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Shelby - 614 Mack Walters Rd - Shelbyville

3.) CIRCUIT NAME AND NUMBER 2534

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Shelbyville - Main St/US 60, Sunset Way, Old KY 55, & Haven Hill Rd - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 11.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 861

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/05/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 39.9%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 14.7%

Trees- 17.1%

Utility Equipment- 23.1%

Vehicle- 5.3%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	15.53	;
J.	CINCOLL S LEAN AVENAGE (SAID)	1	J

10.) 2020 SAIDI 23.42

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.14

12.) 2020 SAIFI 0.18

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 343 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	<b>EMINENCE</b>
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Henry - 1257 Ballardsville Rd - Eminence

3.) CIRCUIT NAME AND NUMBER 2535

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Eminence - Giltner Rd, Smithfield Rd, & Hwy 22 - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 14.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 249

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/23/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.1%

Construction- 0.0%

Lightning- 0.2%

Non-Company- 0.0%

Other/Unknown- 0.1%

Overload- 0.0%

Planned Work- 0.0%

Trees- 39.8%

Utility Equipment- 0.2%

Vehicle- 59.6%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 101.89

10.) 2020 SAIDI 281.88

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.65

12.) 2020 SAIFI 1.72

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 344 of 360

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W	ol	lfe

1.) SUBSTATION NAME AND NUMBER	MID VALLEY CLARKSON
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Grayson - 1960 Peonia Rd - Clarkson
3.) CIRCUIT NAME AND NUMBER	2538
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Clarkson - No Road - W of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	0.0
6.) CUSTOMER COUNT FOR THIS CIRCUIT	1
7.) DATE OF LAST CIRCUIT TRIM (VM)	No Trimming Necessary
8.) 2020 OUTAGES BY CAUSE	
Animal-	0.0%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	0.0%
Overload-	0.0%
Planned Work-	100.0%
Trees-	0.0%
Utility Equipment-	0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 121.83

Vehicle- 0.0%

10.) **2020 SAIDI** 62.63

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40

12.) 2020 SAIFI 1.00

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 345 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	GREEN RIVER
	, 55551711161111711112711151115211	CITELITATION

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Muhlenberg - 811 Power Plant Dr - South Carrollton

3.) CIRCUIT NAME AND NUMBER 3412

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Muhlenberg - HWY 431 & 138 - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 7.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/31/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 100.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	86.1	2
ر. ر	CINCOLL 2 LEAN AVENAGE (SAID)	1	

10.) 2020 SAIDI 338.10

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.10

12.) 2020 SAIFI 4.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 346 of 360

Wolfe

1 )	SUBSTATION NAME AND NUMBER	Earlington - Oak Hill (Sec 3B)
1.1	3003 I A I I O IN INAINIE AIND IN OIVIDEN	Earlington - Oak mill (Sec 3b)

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hopkins - 202 Russ Hill Rd - Nortonville

3.) CIRCUIT NAME AND NUMBER 3418

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Nortonville - Daniel Boone Rd & Hwy 41 Alt, & Hwy 62 - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 18.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 3,127

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/07/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 28.3%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 71.7%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	16.87
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10.) **2020 SAIDI** 3.00

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.39

12.) 2020 SAIFI 3.00

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 347 of 360

Wolfe

1.) 9	SUBSTATION NAME AND NUMBER	Princeton - Hardesty Tap
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Caldwell - 320 Marion Rd - Princeton

3.) CIRCUIT NAME AND NUMBER 3423

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Princeton - Watson Rd, Mt. Hebron Rd, & Mill Dam Rd - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 19.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 945

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/28/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 75.3%

Non-Company- 0.0%

Other/Unknown- 24.7%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 7.33

10.) 2020 SAIDI 10.00

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.82

12.) 2020 SAIFI 10.00

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 348 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER	Green River - Rumsey
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) County - Road - Town

3.) CIRCUIT NAME AND NUMBER 3424

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Town - Road - General Area

5.) TOTAL CIRCUIT LENGTH (MILES) 9.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/31/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	0.40
9.1	CIRCUIT 5 YEAR AVERAGE (SAIDI)	) U.

10.) 2020 SAIDI 2.00

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40

12.) 2020 SAIFI 2.00

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 349 of 360

1.) \$	SUBSTATION NAME AND NUMBER	GARDNER
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clay - HWY 66/Redbird Rd - Ashers Fork

3.) CIRCUIT NAME AND NUMBER 4336

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Ashers Fork - State Hwy 66 - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 30

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/29/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 1.8%

Overload- 0.0%

Planned Work- 0.0%

Trees- 98.2%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	93.31
J.1		23.31

10.) 2020 SAIDI 352.33

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.02

12.) 2020 SAIFI 3.03

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 350 of 360 Wolfe

	1.)	SUBSTATION NAME AND NUMBER	FOURMILE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bell - Hwy 2014 - Pineville

3.) CIRCUIT NAME AND NUMBER 4340

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Pineville - Hwy 2014 & 2015, US 25, & Hwy 92 - SW & N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 15.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 175

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/03/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.4%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 8.7%

Overload- 0.0%

Planned Work- 2.8%

Trees- 76.2%

Utility Equipment- 11.9%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	1) 226.47

10.) 2020 SAIDI 517.04

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.37

12.) 2020 SAIFI 2.69

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

Tree Trim Scheduled for 2021

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 351 of 360

1.) SUBSTATION NAME AND NUMBER	SHAWNEE GAS 12KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Harlan - Ball Park Rd - Harlan

3.) CIRCUIT NAME AND NUMBER 4402

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Harlan - Hwy 421 & Hwy 990 - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 17.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 498

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/08/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 1.6%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 50.5%

Overload- 0.0%

Planned Work- 35.2%

Trees- 11.1%

Utility Equipment- 1.5%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	61.0	07
ر. ر	CINCUIT 3 TEAN AVENAGE (SAIDI	J	۱

10.) 2020 SAIDI 73.56

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.55

12.) 2020 SAIFI 0.90

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

Reliability Improvements Completed in 2020

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 352 of 360

1.) SUBSTATION NAME AND NUMBER HARLAN 12
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Harlan - Corner of River St and Rain St - Harlan

3.) CIRCUIT NAME AND NUMBER 4407

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Harlan - State HWY 38 - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 116

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/11/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 40.7%

Overload- 24.9%

Planned Work- 8.5%

Trees- 25.9%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	108.46

10.) 2020 SAIDI 164.31

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.33

12.) 2020 SAIFI 2.80

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 353 of 360

Wolfe

1.	SUBSTATION NAME AND NUMBER	HARLAN WYE 4KV
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Harlan - Sunshine Pike Rd just W of US HWY 421 - Harlan

3.) CIRCUIT NAME AND NUMBER 4411

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Harlan - US HWY 421 - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 405

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/02/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 36.1%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 35.7%

Overload- 0.0%

Planned Work- 20.8%

Trees- 7.3%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI	28.93
ر. ر	CINCUIT 5 TEAN AVENAGE (SAIDI	1 20.3

10.) 2020 SAIDI 35.98

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.28

12.) 2020 SAIFI 0.52

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 354 of 360

Wolfe

4 \	CLIDGE ATION ALABAT AND ALLIANDED	
1.1	SUBSTATION NAME AND NUMBER	CATRONS CREEK

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Harlan - Near 6872 Hwy 72 - Gulston

3.) CIRCUIT NAME AND NUMBER 4427

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Gulston - Hwy 72 & Bardo Hollow Rd - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 3.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 94

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/15/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.5%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 61.5%

Overload- 0.0%

Planned Work- 0.7%

Trees- 37.3%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 106.14

10.) 2020 SAIDI 468.54

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.58

12.) 2020 SAIFI 2.28

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

Trees Trimmed in 2020

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 355 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	CATRONS CREEK

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Harlan - Near 6872 Hwy 72 - Gulston

3.) CIRCUIT NAME AND NUMBER 4428

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Gulston - Hwy 1216, Hwy 72, & Hwy 2425 - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 8.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 321

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/16/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.3%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 6.7%

Overload- 0.0%

Planned Work- 5.2%

Trees- 87.7%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUII 5 YEAR AVERAGE (SAIDI)	104.40
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	102

10.) 2020 SAIDI 161.79

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.84

12.) 2020 SAIFI 1.35

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

Trees Trimmed in 2020

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 356 of 360

Wolfe

1.) SUBSTATION NAME AND NUMBER VE	ERDA
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Harlan - Corner of School St - Evarts

3.) CIRCUIT NAME AND NUMBER 4479

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Evarts - Hwy 38, Nolan Ln, & Ages Creek Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 13.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 496

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/02/2016

8.) 2020 OUTAGES BY CAUSE

Animal- 0.3%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 94.4%

Overload- 0.0%

Planned Work- 0.2%

Trees- 5.2%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	99.98

10.) **2020 SAIDI** 73.49

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.79

12.) 2020 SAIFI 1.24

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 357 of 360

W	പ	lfΔ

1.)	SUBSTATION NAME AND NUMBER	SOMERSET 3

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Pulaski - 125 Young St. - Somerset

3.) CIRCUIT NAME AND NUMBER 4501

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Somerset - E Mt. Vernon St & Eller St - E & SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 8.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 720

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/10/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.5%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 2.6%

Other/Unknown- 82.8%

Overload- 0.0%

Planned Work- 1.8%

Trees- 11.7%

Utility Equipment- 0.6%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	19.23

10.) 2020 SAIDI 24.76

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.42

12.) 2020 SAIFI 1.07

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 358 of 360

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SOMERSET 3

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Pulaski - 125 Young St. - Somerset

3.) CIRCUIT NAME AND NUMBER 4502

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Somerset - Pumphouse Rd, Speedway Dr, & College St - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 13.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 885

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/10/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 71.3%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 28.2%

Utility Equipment- 0.5%

Vehicle- 0.0%

9.) CIRC	UIT 5 YEAR AVERAGE (SAIDI)	47.93
9.) CIKC	JII 5 YEAK AVEKAGE (SAIDI)	4/

10.) 2020 SAIDI 120.78

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.62

12.) 2020 SAIFI 1.76

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

Trees Trimmed in 2020

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 359 of 360 Wolfe

1.) SUBSTATION NAME AND NUMBER	SOMERSET 2
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Pulaski - 105 Tandy Ave - Somerset

3.) CIRCUIT NAME AND NUMBER 4506

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Somerset - N Main St, Robin Dr, & Elliott Dr - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 1.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 100

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/25/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 7.2%

Overload- 0.0%

Planned Work- 92.8%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.	CIRCUIT 5 YEAR AVERAGE (SAIDI)	14.59

10.) 2020 SAIDI 22.67

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.19

12.) 2020 SAIFI 0.36

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 360 of 360

Wolfe

#### KENTUCKY PUBLIC SERVICE COMMISSION

#### **ELECTRIC DISTRIBUTION UTILITY ANNUAL RELIABILITY REPORT**

#### **SECTION 6: VEGETATION MANAGEMENT PLAN REVIEW**

The Companies' Vegetation Management Plan was submitted December 19, 2007. The Distribution Vegetation Management Program encompasses right of way maintenance for Louisville Gas and Electric Company and Kentucky Utilities Company (referred to as the "Companies"). The program is centralized and managed by a Forestry Manager and eight company Utility Arborists. All are certified arborists by the International Society of Arboriculture.

The Companies' plan is to maintain a proactive trim cycle while balancing the reactive needs of worst performing circuits. The Companies' goal is to maintain an average trim cycle of five years or less. The effectiveness of the plan is evaluated by the cycle and system performance as measured by system SAIDI, SAIFI, and CAIDI.

#### Effectiveness of the program

KU/LG&E Tree Cycle – 4.90 years

KU (Kentucky) Tree SAIDI – 21.90 minutes

KU (Kentucky) Tree SAIFI - 0.145

KU (Kentucky) Tree CAIDI – 151.1 minutes

The hazard tree program, mid cycle, herbicide, and worst performing circuits were completed as planned.

#### Adjustments made to the tree plan in 2020 included

No changes made to plan.

#### Changes to be implemented in 2021

No changes made to plan. Continue targeted hazard tree and mid-cycle trim work.

#### **SECTION 7: UTILITY COMMENTS**

SAIDI, SAIFI and CAIDI all improved in 2020 compared to the previous 5 year average including and excluding major events. 358 Circuits were above their previous 5 year average SAIDI and/or SAIFI in 2020.

Wolfe

#### **KENTUCKY PUBLIC SERVICE COMMISSION**

#### **ELECTRIC DISTRIBUTION UTILITY ANNUAL RELIABILITY REPORT**

#### **SECTION 1: CONTACT INFORMATION**

UTILITY NAME
REPORT PREPARD BY
Steve Woodworth (Dir. System Ops & Planning)

E-MAIL ADDRESS OF PREPARER
PHONE NUMBER OF PREPARER
(502) 627-3828

#### **SECTION 2: REPORTING YEAR**

CALENDAR YEAR OF REPORT 2020

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

$T_MED$	3.344
FIRST DATE USED TO DETERMINE $T_{\text{MED}}$	1/1/2015
LAST DATE USED TO DETERMINE $T_{MED}$	12/31/2019
NUMBER OF MED IN REPORTING YEAR	5

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 RELIABILTIY INFORMATION AND RESULTS**

#### **System-wide Information**

TOTAL CUSTOMERS 434,471 TOTAL CIRCUITS 619

#### **Excluding MED**

5 YEAR AVERAGE			REPORTING YEAR	
SAIDI	77.82	SAIDI	71.44	
SAIFI	0.926	SAIFI	0.736	-

#### **Including MED**

5 YEAR AVERAGE		REPORTING YEAR	
SAIDI	187.75	SAIDI	106.88
SAIFI	1.164	SAIFI	0.866

#### 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  $T_{\text{MED}}$

#### **SECTION 5: CIRCUIT REPORTING**

**BEGIN ON NEXT PAGE** 

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 2 of 217

0.74

1.13

Wolfe

		,,,	
1.)	SUBSTATION NAME AND NUMBER	ASHBY	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 5400 Vesper Ln - Lousivlle	
3.)	CIRCUIT NAME AND NUMBER	AB1202	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Greentree Ln & Dixie Hwy - S of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	19.4	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,863	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	09/19/2020	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	2.3%	
	Construction-	0.0%	
	Lightning- 0.0%		
	Non-Company- 2.9%		
	Other/Unknown-	1.1%	
	Overload-	0.0%	
	Planned Work-	24.2%	
	Trees-	0.2%	
	Utility Equipment-	14.3%	
	Vehicle-	55.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	65.75	
10.)	2020 SAIDI	101.96	

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 3 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	ASHBY
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 5400 Vesper Ln - Lousivlle
3.)	CIRCUIT NAME AND NUMBER	AB1203
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Ashby Ln & Bethany Ln - W of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	17.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,212
7.)	DATE OF LAST CIRCUIT TRIM (VM)	09/19/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	8.8%
	Construction-	0.0%
	Lightning-	34.3%
	Non-Company-	0.0%
	Other/Unknown-	3.2%
	Overload-	0.0%

Trees- 15.4%

Utility Equipment- 17.3%

Planned Work- 21.0%

Vehicle- 0.0%

9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	62.80
10.) 2020 SAIDI	78.31
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.89
12.) <b>2020 SAIFI</b>	1.38

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 4 of 217

Wolfe

1.) SUBSTATION NAME AND NUMBER	ASHBY
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 5400 Vesper Ln - Lousivlle
3.) CIRCUIT NAME AND NUMBER	AB1205
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Valley Station Rd & Dodge Ln - E of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	24.6
6.) CUSTOMER COUNT FOR THIS CIRCUIT	2,199
7.) DATE OF LAST CIRCUIT TRIM (VM)	09/05/2020
8.) 2020 OUTAGES BY CAUSE	
Animal-	- 0.9%
Construction-	- 0.0%
Lightning-	- 3.3%
Non-Company-	- 0.0%
Other/Unknown-	- 12.9%
Overload-	- 0.0%
Planned Work-	- 8.1%
Trees-	- 12.8%

Utility Equipment- 9.9%

Vehicle- 52.2%

9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	110.35
10.) <b>2020 SAIDI</b>	114.24
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.31
12.) <b>2020 SAIFI</b>	1.79

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 5 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	AIKEN
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 12909 Shelbyville Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	AK1293
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - New English Station Rd - NE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	4.4
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	143
7.)	DATE OF LAST CIRCUIT TRIM (VM)	11/21/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 98.4%

Overload- 0.0%

Planned Work- 1.6%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	80.51	
10.)	2020 SAIDI	127.85	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.56	
12.)	2020 SAIFI	2.01	

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 6 of 217

1.45

Wolfe

1.)	SUBSTATION NAME AND NUMBER	AIKEN
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 12909 Shelbyville Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	AK1294
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Old Shelbyville Rd - W of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	6.7
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	491
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/29/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	17.9%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	41.0%
	Overload-	0.0%
	Planned Work-	1.8%
	Trees-	39.3%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	68.57
10.)	2020 SAIDI	64.78
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.79

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

Trees Trimmed in 2020

12.) 2020 SAIFI

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 7 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	AIKEN
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 12909 Shelbyville Rd. - Louisville

3.) CIRCUIT NAME AND NUMBER AK1296

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - ShelbyvilleRd & N Beckley Station - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 35.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,588

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/29/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.5%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 22.7%

Trees- 0.5%

Utility Equipment- 76.3%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 33.67

10.) 2020 SAIDI 139.80

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.35

12.) 2020 SAIFI 0.47

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 8 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	ALGONQUIN
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1800 S 11th St - Louisville
3.)	CIRCUIT NAME AND NUMBER	AL1374
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - S 7th St & Algonquin Pky - SE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	3.6
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	450
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/09/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 10.5%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 9.5%

Other/Unknown- 21.5%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 58.5%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	29.81	
10.)	2020 SAIDI	149.06	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.38	
12.)	2020 SAIFI	1.88	

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 9 of 217

Wolfe

ALGONQUIN
Jefferson - 1800 S 11th St - Louisville
AL1377
Louisville - W Hill St & S 10th St - N of Substation
1.2
4
02/09/2019
- 0.0%
- 0.0%
- 0.0%
- 0.0%
- 0.0%
- 0.0%
- 0.0%
- 0.0%
100.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	61.55
-----	--------------------------------------	-------

Vehicle- 0.0%

10.) <b>2020 SAIDI</b>	297.37
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.36

1.40

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

Continue to Monitor

12.) 2020 SAIFI

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 10 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	ASHBOTTOM	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Fayette - 96 Burley Ave Lexington	
3.)	CIRCUIT NAME AND NUMBER	AS1416	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Grade Ln - N of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	6.2	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	53	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/02/2019	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.0%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	2.5%	
	Overload-	0.0%	
	Planned Work-	0.0%	
	Trees-	96.6%	
	Utility Equipment-	0.9%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	212.53	
10.)	2020 SAIDI	375.84	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.82	
12.)	2020 SAIFI	1.06	

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 11 of 217

Wolfe

1.) SUBSTATION NAME AND NUMBER	ASHBOTTOM
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 8113 Grade Ln - Louisville
3.) CIRCUIT NAME AND NUMBER	AS1418
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Outer Loop - S of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	8.7
6.) CUSTOMER COUNT FOR THIS CIRCUIT	54
7.) DATE OF LAST CIRCUIT TRIM (VM)	02/02/2019
8.) 2020 OUTAGES BY CAUSE	
Animal-	0.0%
Construction-	0.0%
Lightning-	5.8%
Non-Company-	0.0%
Other/Unknown-	86.9%
Overload-	0.0%
Planned Work-	0.0%

Vehicle- 0.0%

Utility Equipment- 7.3%

Trees- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	63.96
10.)	2020 SAIDI	99.62
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.60
12.)	2020 SAIFI	1.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 12 of 217

0.18

Wolfe

1.)	SUBSTATION NAME AND NUMBER	BISHOP	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3920 Bishop Ln - Louisville	
3.)	CIRCUIT NAME AND NUMBER	BI1218	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisivlle - Bishop Ln - N of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.8	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	131	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	04/15/2017	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	11.6%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	67.0%	
	Overload-	0.0%	
	Planned Work-	0.0%	
	Trees-	0.0%	
	Utility Equipment-	21.4%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	15.47	
10.)	2020 SAIDI	11.28	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.13	

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

Continue to Monitor

12.) **2020 SAIFI** 

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 13 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	BISHOP
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3920 Bishop Ln - Louisville
3.)	CIRCUIT NAME AND NUMBER	BI1221
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Robards Ln - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.7
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	64
7.)	DATE OF LAST CIRCUIT TRIM (VM)	04/15/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	11.2%
	Overload-	0.0%
	Planned Work-	70.3%
	Trees-	0.0%
	Utility Equipment-	18.5%
	Vehicle-	0.0%

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

10.) <b>2020 SAIDI</b>	59.89
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.12

17.43

12.) 2020 SAIFI 0.23

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 14 of 217

Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 913 S 1st Street - Louisivlle
2.) SOBSTATION LOCATION (COUNTY NOAD TOWN)	Jenerson 313 3 13t Street Louisivile

3.) CIRCUIT NAME AND NUMBER BK0002

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - S Brook St & S Floyd St - E of Substation

**BROOK** 

5.) TOTAL CIRCUIT LENGTH (MILES) 2.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 181

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/08/2020

8.) 2020 OUTAGES BY CAUSE

1.) SUBSTATION NAME AND NUMBER

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 100.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	20.63	
10.)	2020 SAIDI	17.90	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.18	

0.19

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

Continue to Monitor

12.) 2020 SAIFI

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 15 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	BRECKENRIDGE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3920 Dutchmans Ln Louisville
3.)	CIRCUIT NAME AND NUMBER	BR1181
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Browns Ln - SE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	24.1
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,062

8.) 2020 OUTAGES BY CAUSE

7.) DATE OF LAST CIRCUIT TRIM (VM)

Animal- 1.4%

08/01/2020

Construction- 6.1%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 27.0%

Overload- 0.0%

Planned Work- 8.7%

Trees- 48.2%

Utility Equipment- 8.7%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	103.32
10.)	2020 SAIDI	148.43
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.41
12.)	2020 SAIFI	1.75

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

Trees Trimmed in 2020

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 16 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	BRECKENRIDGE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3920 Dutchmans Ln Louisville
3.)	CIRCUIT NAME AND NUMBER	BR1182
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - I - 264 East - E of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	6.0
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	226

8.) 2020 OUTAGES BY CAUSE

7.) DATE OF LAST CIRCUIT TRIM (VM)

Animal- 0.0%

08/01/2020

Construction- 100.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	38.98
10.) <b>2020 SAIDI</b>	43.10
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.52
12.) <b>2020 SAIFI</b>	1.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 17 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	BRECKENRIDGE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3920 Dutchmans Ln Louisville
3.)	CIRCUIT NAME AND NUMBER	BR1184
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - I - 264 East - E of Substation
- \		

5.) TOTAL CIRCUIT LENGTH (MILES) 1.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 8

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/17/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 100.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	171.19	
10.)	2020 SAIDI	744.33	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.28	
12.)	2020 SAIFI	1.00	

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 18 of 217

Wolfe

1.) SUBSTATION NAME AND NUMBER	BRECKENRIDGE
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3920 Dutchmans Ln Louisville
3.) CIRCUIT NAME AND NUMBER	BR1185
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Taylorsville Rd - S of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	14.9
6.) CUSTOMER COUNT FOR THIS CIRCUIT	1,827
7.) DATE OF LAST CIRCUIT TRIM (VM)	01/16/2021
8.) 2020 OUTAGES BY CAUSE	
Animal	5.4%
Construction-	2.2%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	25.7%
Overload-	0.0%
Planned Work-	7.5%

Trees- 38.8%

Utility Equipment- 20.3%

Vehicle- 0.0%

9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	121.12
10.) <b>2020 SAIDI</b>	207.11
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.23
12.) <b>2020 SAIFI</b>	2.02

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

Trees Trimmed in 2021

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 19 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	BRECKENRIDGE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 3920 Dutchmans Ln. - Louisville

3.) CIRCUIT NAME AND NUMBER BR1351

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Brekenridge Ln & Shelbyville Rd - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 8.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 353

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/05/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.1%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 55.1%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 44.8%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	113.87

10.) 2020 SAIDI 406.84

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.14

12.) 2020 SAIFI 2.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 20 of 217

19.33

Wolfe

1.)	SUBSTATION NAME AND NUMBER	BRECKENRIDGE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3920 Dutchmans Ln Louisville
3.)	CIRCUIT NAME AND NUMBER	BR1352
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Brekenridge Ln - NW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	3.4
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	107
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/17/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	8.6%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	91.4%
	Vehicle-	0.0%

9.) CIRCUIT 5	YEAR AVERAGE (SAIDI)
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10.) **2020 SAIDI** 54.84

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.41

12.) **2020 SAIFI** 1.62

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 21 of 217

Wolfe

		***************************************
1.)	SUBSTATION NAME AND NUMBER	BLUEGRASS PARKWAY
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 11240 Bluegrass Parkway - Louisville
3.)	CIRCUIT NAME AND NUMBER	BY1279
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Watterson Way - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	13.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	868
7.)	DATE OF LAST CIRCUIT TRIM (VM)	09/23/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	1.2%
	Overload-	0.0%
	Planned Work-	10.0%
	Trees-	0.0%
	Utility Equipment-	88.8%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	36.61

10.) **2020 SAIDI** 70.27

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.21

12.) **2020 SAIFI** 0.53

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 22 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	BLUEGRASS PARKWAY
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 11240 Bluegrass Parkway - Louisville
3.)	CIRCUIT NAME AND NUMBER	BY1283
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisivlle - Blankenbaker Rd - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	8.0
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	432
7.)	DATE OF LAST CIRCUIT TRIM (VM)	09/09/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	2.6%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	37.1%
	Overload-	0.5%
	Planned Work-	40.4%
	Trees-	10.6%
	Utility Equipment-	8.8%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	18.75
10.)	2020 SAIDI	20.95
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.38
12.)	2020 SAIFI	0.24

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 23 of 217

Wolfe

1.) SUBSTATION NAME AND NUMBER	BLUEGRASS PARKWAY
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 11240 Bluegrass Parkway - Louisville
3.) CIRCUIT NAME AND NUMBER	BY1285
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisivlle - Moser Rd - NW of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	10.8
6.) CUSTOMER COUNT FOR THIS CIRCUIT	516
7.) DATE OF LAST CIRCUIT TRIM (VM)	09/09/2017
8.) 2020 OUTAGES BY CAUSE	
Animal	- 0.0%
Construction	- 0.0%
Lightning	- 0.4%
Non-Company	- 0.0%
Other/Unknown	- 0.8%

Overload- 0.0%

Planned Work- 0.0%

Trees- 98.6%

Utility Equipment- 0.2%

Vehicle- 0.0%

9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	39.08
10.) <b>2020 SAIDI</b>	39.14
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.91
12.) 2020 SAIFI	2.05

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

Tree Trim Scheduled for 2021

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 24 of 217

1.)	SUBSTATION NAME AND NUMBER	CANAL
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 2005 Northwestern Parkway - Louisville
3.)	CIRCUIT NAME AND NUMBER	CA1341
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - S 20th St & W Market St - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	5.6
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,049
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/23/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	1.0%
	Other/Unknown-	96.2%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	2.8%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	37.57
10.)	2020 SAIDI	45.69
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.84
12.)	2020 SAIFI	1.61

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 25 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	CANAL
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 2005 Northwestern Parkway - Louisville
3.)	CIRCUIT NAME AND NUMBER	CA1345
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louiville - S 20th St & W Broadway - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,100
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/23/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	100.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	10.73
10.)	2020 SAIDI	14.21
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.57
12.)	2020 SAIFI	0.17

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 26 of 217

Wolfe

	wone
1.) SUBSTATION NAME AND NUMBER	CANAL
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 2005 Northwestern Parkway - Louisville
3.) CIRCUIT NAME AND NUMBER	CA1346
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisivlle - Northwestern PKY & W Market St - W fo Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	5.6
6.) CUSTOMER COUNT FOR THIS CIRCUIT	2,196
7.) DATE OF LAST CIRCUIT TRIM (VM)	02/23/2019
8.) 2020 OUTAGES BY CAUSE	
Animal	- 0.0%
Construction	- 30.0%
Lightning	- 0.0%
Non-Company	- 0.0%
Other/Unknown	- 69.5%
Overload	- 0.0%
Planned Work	- 0.5%
Trees	- 0.0%
Utility Equipment	- 0.0%

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

42.23

10.) <b>2020 SAIDI</b>	102.00
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.39
12.) 2020 SAIFI	2.38

Vehicle- 0.0%

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 27 of 217

1.44

2.07

Wolfe

1.)	SUBSTATION NAME AND NUMBER	CENTERFIELD
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Oldham - 4210 Hwy 393 - Centerfield
3.)	CIRCUIT NAME AND NUMBER	CF1201
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Centerfield - Dawkins Rd - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	52.2
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	532
7.)	DATE OF LAST CIRCUIT TRIM (VM)	03/24/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal- 0.1%	
	Construction-	0.0%
	Lightning- 2.1%	
	Non-Company-	0.0%
	Other/Unknown-	9.8%
	Overload-	0.0%
	Planned Work-	0.5%
	Trees-	47.1%
	Utility Equipment-	40.4%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	232.67
10.)	2020 SAIDI	305.32

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 28 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	CENTERFIELD
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Oldham - 4210 Hwy 393 - Centerfield
3.)	CIRCUIT NAME AND NUMBER	CF1202
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Centerfield - W HWY 22 & Payton Way - SE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	57.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	995
7.)	DATE OF LAST CIRCUIT TRIM (VM)	05/12/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	2.2%
	Construction-	0.1%
	Lightning-	3.1%
	Non-Company-	0.0%
	Other/Unknown-	62.8%
	Overload-	0.0%
	Planned Work-	4.4%
	Trees-	25.6%
	Utility Equipment-	1.7%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	214.27
10.)	2020 SAIDI	230.62
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	2.19
12.)	2020 SAIFI	1.89

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

Wolfe

1.)	SUBSTATION NAME AND NUMBER	CAMPGROUND
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4300 Campground Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	CG1437
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Campgraound Rd - SE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	0.6
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/17/2017
8.)	2020 OUTAGES BY CAUSE	
Animal- 0.0%		
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	100.0%
	Trees-	0.0%
	Utility Equipment-	0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE</b>	(SAIDI)	18.56
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10.) 2020 SAIDI 52.80
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40

Vehicle- 0.0%

12.) **2020 SAIFI** 1.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 30 of 217

0.25

1.00

Wolfe

		wone	
1.)	SUBSTATION NAME AND NUMBER	CAMPGROUND	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4300 Campground Rd Louisville	
3.)	CIRCUIT NAME AND NUMBER	CG1438	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Shepherdsville - Campground Rd - SE of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	0.5	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/17/2017	
8.)	2020 OUTAGES BY CAUSE		
	Animal- 0.0%		
	Construction- 0.0%		
	Lightning- 0.0%		
	Non-Company- 0.0%		
	Other/Unknown- 100.0%		
	Overload-	0.0%	
	Planned Work-	0.0%	
	Trees-	0.0%	
	Utility Equipment-	0.0%	
	Vehicle- 0.0%		
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	73.71	
10.)	2020 SAIDI	294.83	

12.) 2020 SAIFI13.) LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

Continue to Monitor

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 31 of 217

0.22

0.42

		wone	
1.)	SUBSTATION NAME AND NUMBER	CLARKS LANE	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 934 Clarks Ln - Louisville	
3.)	CIRCUIT NAME AND NUMBER	CK0002	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Pindell Ave - S of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	3.0	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	453	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	09/28/2019	
8.)	2020 OUTAGES BY CAUSE		
	Animal- 0.0%		
	Construction-	4.3%	
	Lightning- 6.9%		
	Non-Company-	0.0%	
	Other/Unknown-	37.6%	
	Overload-	0.0%	
	Planned Work-	16.9%	
	Trees-	5.3%	
	Utility Equipment-	29.0%	
	Vehicle- 0.0%		
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	32.65	
10.)	2020 SAIDI	55.09	

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 32 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	CLARKS LANE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 934 Clarks Ln - Louisville
3.)	CIRCUIT NAME AND NUMBER	СК0003
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Eastern PKY - W of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	1.4
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	222
7.)	DATE OF LAST CIRCUIT TRIM (VM)	09/28/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	11.4%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	14.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	57.2%
	Utility Equipment-	17.5%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	43.90
10.)	2020 SAIDI	48.04
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.36
12.)	2020 SAIFI	0.35

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 33 of 217

0.42

1.09

Wolfe

		wone
1.)	SUBSTATION NAME AND NUMBER	CLIFTON
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 2009 New Main Street - Louisville
3.)	CIRCUIT NAME AND NUMBER	CL1227
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Frankfort Ave, Clifton Ave, & Ewing Ave - E of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	3.1
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	647
7.)	DATE OF LAST CIRCUIT TRIM (VM)	09/15/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	1.3%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	17.4%
	Trees-	77.9%
	Utility Equipment-	3.4%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	25.44
10.)	2020 SAIDI	34.36

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 34 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	CLIFTON
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 2009 New Main Street - Louisville
3.)	CIRCUIT NAME AND NUMBER	CL1230
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Mellwood Ave, Shiloh Ave, & River Rd - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	15.6
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,092
7.)	DATE OF LAST CIRCUIT TRIM (VM)	11/03/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	2.8%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	56.0%
	Overload-	0.0%
	Planned Work-	5.8%
	Trees-	24.4%
	Utility Equipment-	3.9%
	Vehicle-	7.1%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	47.36
10 ١	2020 CAIDI	40.24

10.) 2020 SAIDI 40.24

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.49

12.) 2020 SAIFI 1.14

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 35 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	CLIFTON
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 2009 New Main Street - Louisville
3.)	CIRCUIT NAME AND NUMBER	CL1232
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Frankfort Ave, Story Ave, & E Main St - W of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	12.5
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,777
7.)	DATE OF LAST CIRCUIT TRIM (VM)	11/03/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.1%
	Construction-	0.6%
	Lightning-	0.0%
	Non-Company-	6.1%
	Other/Unknown-	51.0%
	Overload-	0.0%
	Planned Work-	10.9%
	Trees-	25.0%
	Utility Equipment-	5.8%
	Vehicle-	0.4%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	42.35
10.)	2020 SAIDI	59.85
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.04
12.)	2020 SAIFI	0.54

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 36 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	CLIFTON
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 2009 New Main Street - Louisville
3.)	CIRCUIT NAME AND NUMBER	CL1405
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Mellwood Ave, River Rd, & River Green Cir - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	5.4
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	82
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/28/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.8%
	Overload-	0.0%

Planned Work- 6.6%

Trees- 92.3%

Utility Equipment- 0.3%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	96.44
10.) <b>2020 SAIDI</b>	269.09
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.99
12.) <b>2020 SAIFI</b>	1.05

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 37 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	CLIFTON
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 2009 New Main Street - Louisville
3.)	CIRCUIT NAME AND NUMBER	CL1407
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Payne St, Spring St, & Story Ave - W of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	1.5
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	5
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/28/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	100.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	52.34
10.)	2020 SAIDI	72.53
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.08
12.)	2020 SAIFI	0.20

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

Continue to Monitor

36

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 38 of 217

Wolfe

			J-1-0
1.)	SUBSTATION NAME AND NUMBER	COLLINS	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3401 Coillins Ln Louisville	
3.)	CIRCUIT NAME AND NUMBER	CO1197	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - La Grange Rd, Reamers Rd, & Chamberlain Ln - E of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	26.0	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,110	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	12/21/2019	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	8.9%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	19.7%	
	Overload-	0.0%	
	Planned Work-	0.0%	
	Trees-	9.1%	
	Utility Equipment-	11.4%	
	Vehicle-	50.9%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	37.30	

10.) 2	2020 SAIDI	33.87	
11.) <b>C</b>	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.28	

0.32

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

Continue to Monitor

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 39 of 217

0.50

Wolfe

1.)	SUBSTATION NAME AND NUMBER	CANE RUN
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 5252 Cane Run Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	CR1422
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - No Road - At Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	0.5
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	4
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/22/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	100.0%
	Trees-	0.0%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	7.54
10.)	2020 SAIDI	11.72
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.17

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

Continue to Monitor

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0.12

0.16

Wolfe

		Wolfe
1.)	SUBSTATION NAME AND NUMBER	CARTER
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - Opposite 2215 Carter St - Louisville
3.)	CIRCUIT NAME AND NUMBER	CT0001
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - N 22nd St & Griffiths Ave - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.4
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	354
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/23/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.3%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	12.8%
	Trees-	0.0%
	Utility Equipment-	0.0%
	Vehicle-	86.8%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	15.44
10.)	2020 SAIDI	41.35

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 41 of 217

Wolfe

			wone
1.)	SUBSTATION NAME AND NUMBER	CARTER	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - Opposite 2215 Carter St - Louisville	
3.)	CIRCUIT NAME AND NUMBER	CT0002	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Portland Ave, 24th St, & Northwestern Pky - W of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	1.9	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	276	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/23/2019	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.0%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	1.4%	
	Overload-	0.0%	
	Planned Work-	96.4%	
	Trees-	1.4%	
	Utility Equipment-	0.8%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	29.34	

9.) **CIRCUIT 5 YEAR AVERAGE (SAIDI)** 29.34

10.) 2020 SAIDI 34.70

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.21

12.) 2020 SAIFI 0.34

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

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0.43

0.56

Wolfe

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1.)	SUBSTATION NAME AND NUMBER	CARTER
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - Opposite 2215 Carter St - Louisville
3.)	CIRCUIT NAME AND NUMBER	CT0003
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Portland Ave & N 20th St - SE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	0.5
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	44
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/23/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	67.7%
	Trees-	0.0%
	Utility Equipment-	0.0%
	Vehicle-	32.3%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	12.03
10.)	2020 SAIDI	10.83

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

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Wolfe

	1.)	SUBSTATION NAME AND NUMBER	CRESTWOOD
;	2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Oldham - Floydsburg Rd Crestwood
;	3.)	CIRCUIT NAME AND NUMBER	CW1227
	4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Crestwood - HWY 22, Carriage Hill Dr, & Mary Clayton Ln - NE of Substation
!	5.)	TOTAL CIRCUIT LENGTH (MILES)	32.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 958

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/27/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.9%

Construction- 0.0%

Lightning- 0.7%

Non-Company- 0.0%

Other/Unknown- 46.9%

Overload- 0.0%

Planned Work- 0.5%

Trees- 51.1%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	61.20	
10.)	2020 SAIDI	112.81	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.41	
12.)	2020 SAIFI	0.62	

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 44 of 217

Wolfe

			* * 0110
1.)	SUBSTATION NAME AND NUMBER	CRESTWOOD	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Oldham - Floydsburg Rd Crestwood	
3.)	CIRCUIT NAME AND NUMBER	CW1228	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Crestwood - HWY 329, I 71, Covered Bridge Rd, & Halls Hill Rd - N of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	71.8	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,214	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	12/31/2019	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.7%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	4.7%	
	Overload-	0.1%	
	Planned Work-	2.5%	
	Trees-	38.3%	
	Utility Equipment-	53.7%	

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 204.44

Vehicle- 0.0%

10.) **2020 SAIDI** 523.14

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.81

12.) **2020 SAIFI** 3.16

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 45 of 217

0.33

Wolfe

1.)	SUBSTATION NAME AND NUMBER	CLAY
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 908 Clay St Louisville
3.)	CIRCUIT NAME AND NUMBER	CY1483
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Breckinridge St, Vine St, Highland Ave, & Barrett Ave - E of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.1
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	14
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/06/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	100.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	23.73
10.)	2020 SAIDI	22.89
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.21

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

Continue to Monitor

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 46 of 217

Wolfe

		Wolfe	
1.)	SUBSTATION NAME AND NUMBER	CLAY	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 908 Clay St Louisville	
3.)	CIRCUIT NAME AND NUMBER	CY1484	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Jackson St, Jacob St, Floyd St, & 1st St - NW of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	4.1	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	66	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/06/2018	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	6.4%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	88.9%	
	Overload-	0.0%	
	Planned Work-	4.6%	
	Trees-	0.0%	
	Utility Equipment-	0.0%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	59.17	

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	59.17
10.) <b>2020 SAIDI</b>	63.20
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.54
12 \ 2020 SAIFI	1 21

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 47 of 217

Wolfe

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1.)	SUBSTATION NAME AND NUMBER	CLAY	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 908 Clay St Louisville	
3.)	CIRCUIT NAME AND NUMBER	CY1486	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Caldwell St, Logan St, Jackson St, Goss Ave, & Ash St - S of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	4.2	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	257	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/06/2018	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.0%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	0.0%	
	Overload-	0.0%	
	Planned Work-	0.0%	
	Trees-	0.0%	
	Utility Equipment-	100.0%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	18.29	

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 18.29

10.) **2020 SAIDI** 82.24

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.38

12.) **2020 SAIFI** 1.83

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 48 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	DAHLIA
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 2135 Dahlia Ave Louisville
3.)	CIRCUIT NAME AND NUMBER	DA1239
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Gardiner Ln, I 265 E, & Newburg Rd - SW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	14.0
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,409
7.)	DATE OF LAST CIRCUIT TRIM (VM)	10/30/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	6.4%
	Construction-	4.3%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	20.8%
	Overload-	0.0%
	Planned Work-	7.9%
	Trees-	46.7%
	Utility Equipment-	13.9%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	89.07

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 89.07

10.) **2020 SAIDI** 61.11

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.59

12.) **2020 SAIFI** 0.72

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 49 of 217

93.79

Wolfe

1.)	SUBSTATION NAME AND NUMBER	DEL PARK
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3135 Del Park Terrance - Louisville
3.)	CIRCUIT NAME AND NUMBER	DE1410
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - River Park Dr, Cecil Ave, Greenwood Ave, & Virginia Ave - SW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	5.5
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,624
7.)	DATE OF LAST CIRCUIT TRIM (VM)	03/21/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	100.0%
	Vehicle-	0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE</b>	(SAIDI)
ر. د	CINCUIT 3 TEAN AVENAGE	(SAIDI)

10.) **2020 SAIDI** 20.49

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 3.46

12.) **2020 SAIFI** 6.08

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 50 of 217

0.27

0.30

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		V 1 0120
1.)	SUBSTATION NAME AND NUMBER	DUMESNIL
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1309 Dumesnil St - Louisville
3.)	CIRCUIT NAME AND NUMBER	DU0002
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - S 13th St, W Hill St, & S 15th St - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	3.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	120
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/09/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	14.4%
	Other/Unknown-	72.5%
	Overload-	0.0%
	Planned Work-	13.1%
	Trees-	0.0%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	47.74
10.)	2020 SAIDI	37.07

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 51 of 217

0.94

Wolfe

1.)	SUBSTATION NAME AND NUMBER	DIXIE	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1706 Bernheim Ln Louisville	
3.)	CIRCUIT NAME AND NUMBER	DX1222	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Millers Ln, Cane Run Rd, Bells Ln, & Algonquin PKY - W of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	26.7	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,408	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	03/01/2019	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	2.8%	
	Construction-	0.0%	
	Lightning- 0.0%		
	Non-Company- 2.1%		
	Other/Unknown- 5.3%		
	Overload-	0.0%	
	Planned Work-	1.2%	
	Trees-	44.9%	
	Utility Equipment-	39.6%	
	Vehicle-	4.1%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	110.79	
10.)	2020 SAIDI	129.44	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.38	

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

Reliability Improvements Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 52 of 217

1.02

Wolfe

1.)	SUBSTATION NAME AND NUMBER	DIXIE	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1706 Bernheim Ln Louisville	
3.)	CIRCUIT NAME AND NUMBER	DX1223	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Dixie Hwy, S 2nd St, & Hale Ave - NW of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	17.4	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,625	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	01/05/2019	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.7%	
	Construction- 0.0%		
	Lightning- 0.4%		
	Non-Company- 2.3%		
	Other/Unknown- 10.3%		
	Overload- 0.4%		
	Planned Work- 39.2%		
	Trees- 34.4%		
	Utility Equipment-	8.8%	
	Vehicle-	3.6%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	84.68	
10.)	2020 SAIDI	100.24	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.29	

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

Reliability Improvements Scheduled for 2021

0.10

0.23

Wolfe

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1.)	SUBSTATION NAME AND NUMBER	EIGHTH	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 841 S 8th St - Louisville	
3.)	CIRCUIT NAME AND NUMBER	EI0002	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - W Breckenridge St, S 6th St, & S 4th St - E of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.0	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	162	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	12/21/2019	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.0%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	0.0%	
	Overload-	0.0%	
	Planned Work-	21.8%	
	Trees-	0.0%	
	Utility Equipment-	0.0%	
	Vehicle-	- 78.2%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	14.32	
10.)	2020 SAIDI	43.23	

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

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0.05

0.06

Wolfe

1.)	SUBSTATION NAME AND NUMBER	EIGHTH
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 841 S 8th St - Louisville
3.)	CIRCUIT NAME AND NUMBER	EI0003
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - S 9th St, W Kentucky St, & S 8th St - SW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	0.6
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	30
7.)	DATE OF LAST CIRCUIT TRIM (VM)	12/21/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	100.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	11.53
10.)	2020 SAIDI	4.31

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 55 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	ETHEL
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3532 Ethel Ave Louisville
3.)	CIRCUIT NAME AND NUMBER	ET1168
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Ethel Ave, Bardstown Rd, Buechel Bank Rd, & Bradford Dr - E of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	11.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,459
7.)	DATE OF LAST CIRCUIT TRIM (VM)	06/27/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 3.3%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.5%

Overload- 0.0%

Planned Work- 0.4%

Trees- 75.9%

Utility Equipment- 2.8%

Vehicle- 17.1%

9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	107.21
10.) 2020 SAIDI	130.33
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.10
12.) 2020 SAIFI	1.25

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

Trees Trimmed in 2020

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 56 of 217

0.59

Wolfe

1.)	SUBSTATION NAME AND NUMBER	ETHEL	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3532 Ethel Ave Louisville	
3.)	CIRCUIT NAME AND NUMBER	ET1169	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Hikes Ln, Champ Trace Ln, & Bashford Manor Ln - N of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	5.6	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	697	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	06/27/2020	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	2.2%	
	Construction-	0.0%	
	Lightning- 0.0%		
	Non-Company- 0.0%		
	Other/Unknown- 13.9%		
	Overload- 0.0%		
	Planned Work- 0.0%		
	Trees- 43.4%		
	Utility Equipment- 40.6%		
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	133.79	
10.)	2020 SAIDI	136.15	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.69	

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

Trees Trimmed in 2020

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 57 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	ETHEL
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3532 Ethel Ave Louisville
3.)	CIRCUIT NAME AND NUMBER	ET1172
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Hikes Ln - NE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	13.6
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,026
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/11/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	3.6%
	Construction-	0.0%
	Lightning-	20.8%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	7.3%
	Trees-	14.9%
	Utility Equipment-	15.2%
	Vehicle-	38.1%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	37.89
10.)	2020 SAIDI	32.58

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.27

12.) 2020 SAIFI 0.33

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 58 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	ETHEL
-----	----------------------------	-------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 3532 Ethel Ave. - Louisville

3.) CIRCUIT NAME AND NUMBER ET1423

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Jennings Ln, Bishop Ln, & Robards Ln - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.2

6.) **CUSTOMER COUNT FOR THIS CIRCUIT** 59

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/13/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 100.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	37.80
٠.,	CINCOLL 2 LEAN AVENAGE (SAIDI)	37.00

10.) 2020 SAIDI 55.00

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.47

12.) 2020 SAIFI 1.00

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 59 of 217

0.21

0.36

Wolfe

		,, 5115
1.)	SUBSTATION NAME AND NUMBER	EASTWOOD
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 100 Flat Road Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	EW1240
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Shelbyville Rd & Beckley Creek PKWY - W of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	13.6
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	364
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/29/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	46.1%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	41.2%
	Overload-	0.0%
	Planned Work-	1.9%
	Trees-	4.6%
	Utility Equipment-	6.1%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	19.87
10.)	2020 SAIDI	22.21

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 60 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	FARNSLEY

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 2428 Farnsley Rd. - Louisville

3.) CIRCUIT NAME AND NUMBER FA1123

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Kramers Ln, Campground Rd, & Lees Ln - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 17.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 910

7.) DATE OF LAST CIRCUIT TRIM (VM) 06/10/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 7.6%

Overload- 0.0%

Planned Work- 0.4%

Trees- 82.0%

Utility Equipment- 0.1%

Vehicle- 10.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	79.93
10.)	2020 SAIDI	92.39
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.09

1.29

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

Tree Trim Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 61 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	FARNSLEY	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 2428 Farnsley Rd Louisvlle	
3.)	CIRCUIT NAME AND NUMBER	FA1214	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Farnsley Rd, Cane Run Rd, Ralph Ave, & Campground Rd - N & E of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	13.0	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	970	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/15/2017	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.9%	
	Construction-	1.7%	
	Lightning-	0.0%	
	Non-Company-	55.3%	
	Other/Unknown-	0.3%	
	Overload-	0.0%	
	Planned Work-	4.2%	
	Trees-	36.3%	
	Utility Equipment-	0.3%	
	Vehicle-	0.9%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	46.50	
10.)	2020 SAIDI	106.61	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.54	
12.)	2020 SAIFI	0.52	

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

Tree Trim Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 62 of 217

1.95

2.42

Wolfe

		Wone	
1.)	SUBSTATION NAME AND NUMBER	FARNSLEY	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 2428 Farnsley Rd Louisvlle	
3.)	CIRCUIT NAME AND NUMBER	FA1216	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Crums Ln, Hillview Ave, & Garrs Ln - SE of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	10.3	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,321	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	06/03/2017	
8.)	2020 OUTAGES BY CAUSE		
	Animal- 4.1%		
	Construction- 0.2%		
	Lightning- 4.6%		
	Non-Company- 0.1%		
	Other/Unknown- 3.8%		
	Overload- 0.0%		
	Planned Work- 15.9%		
	Trees- 48.0%		
	Utility Equipment- 12.1%		
	Vehicle- 11.2%		
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	118.22	
10.)	2020 SAIDI	118.37	

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

Reliability Improvements Scheduled for 2021

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 63 of 217

Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 1048 S 43rd St - Louisville	
2.) SOBSTATION LOCATION (COONTITIOND-TOWN) JEHEISON - 1048 5 4510 50 - LOUISVINE	
3.) CIRCUIT NAME AND NUMBER FC0003	
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - S 43rd St, Fordson Way, & Cecil Ave - S of Substation	
5.) TOTAL CIRCUIT LENGTH (MILES) 1.9	
6.) CUSTOMER COUNT FOR THIS CIRCUIT 277	
7.) DATE OF LAST CIRCUIT TRIM (VM) 01/05/2019	
8.) 2020 OUTAGES BY CAUSE	
Animal- 0.0%	
Construction- 83.6%	
Lightning- 0.0%	
Non-Company- 0.0%	
Other/Unknown- 0.0%	
Overload- 0.0%	
Planned Work- 0.0%	
Trees- 0.0%	
Utility Equipment- 0.0%	
Vehicle- 16.4%	
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 8.20	
10.) <b>2020 SAIDI</b> 8.34	
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.28	
12.) <b>2020 SAIFI</b> 0.09	

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 64 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	FREYS HILL
-----	----------------------------	------------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 3300 Freys Hill Rd. - Louisville

3.) CIRCUIT NAME AND NUMBER FH1209

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Westport Rd, Langdon Dr, & Tiverton Way - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 13.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,547

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/10/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.2%

Construction- 0.0%

Lightning- 4.4%

Non-Company- 0.0%

Other/Unknown- 15.5%

Overload- 0.0%

Planned Work- 1.9%

Trees- 77.2%

Utility Equipment- 0.7%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 55.68

10.) 2020 SAIDI 140.38

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.27

12.) 2020 SAIFI 0.69

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 65 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	FREYS HILL
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3300 Freys Hill Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	FH1211
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Springhurst Blvd & Champion Farms Dr - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	5.7
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	366
7.)	DATE OF LAST CIRCUIT TRIM (VM)	Underground Circuit
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	100.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	35.59
10 \	2020 CAIDI	24.10

٥.,		33.33	
10.)	2020 SAIDI	24.19	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.34	

0.34

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

Continue to Monitor

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 66 of 217

Wolfe

		wone
1.)	SUBSTATION NAME AND NUMBER	FREYS HILL
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3300 Freys Hill Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	FH1213
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Westport Rd, Blossom Ln, Goose Creek Rd & Brownsboro Rd - W of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	28.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,986
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/20/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	3.6%
	Construction-	0.0%
	Lightning-	11.3%
	Non-Company-	0.0%
	Other/Unknown-	33.9%
	Overload-	0.0%
	Planned Work-	1.3%
	Trees-	49.2%
	Utility Equipment-	0.6%

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

61.46

10.) **2020 SAIDI** 119.15

Vehicle- 0.0%

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.53

12.) **2020 SAIFI** 1.56

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 67 of 217

Wolfe

	***************************************
1.) SUBSTATION NAME AND NUMBER	FREYS HILL
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3300 Freys Hill Rd Louisville
3.) CIRCUIT NAME AND NUMBER	FH1214
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Freys Hill Rd, Evergreen Rd, & Park Rd - SE of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	26.3
6.) CUSTOMER COUNT FOR THIS CIRCUIT	720
7.) DATE OF LAST CIRCUIT TRIM (VM)	05/04/2019
8.) 2020 OUTAGES BY CAUSE	
Animal-	- 0.1%
Construction-	- 0.0%
Lightning	- 0.0%
Non-Company-	- 0.0%
Other/Unknown-	- 0.8%
Overload-	- 0.0%
Planned Work	- 2.3%
Trees-	- 91.8%
Utility Equipment-	• 5.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)

84.41

10.) <b>2020 SAIDI</b>	191.29
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.11
12 ) 2020 SAIFI	1 73

Vehicle- 0.0%

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 68 of 217

Wolfe

	Wolfe
1.) SUBSTATION NAME AND NUMBER	FREYS HILL
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3300 Freys Hill Rd Louisville
3.) CIRCUIT NAME AND NUMBER	FH1216
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Springhurst Blvd & N Hurstbourne PKY - NW of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	15.8
6.) CUSTOMER COUNT FOR THIS CIRCUIT	903
7.) DATE OF LAST CIRCUIT TRIM (VM)	08/10/2019
8.) 2020 OUTAGES BY CAUSE	
Animal	- 0.1%
Construction	- 0.0%
Lightning	- 0.0%
Non-Company	- 0.0%
Other/Unknown	- 83.2%
Overload	- 0.0%
Planned Work	- 16.7%
Trees	- 0.0%
Utility Equipment	- 0.0%
Vehicle	- 0.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	18.38

10.) **2020 SAIDI** 47.09

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.22

12.) **2020 SAIFI** 0.65

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 69 of 217

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			VV OIIC
1.)	SUBSTATION NAME AND NUMBER	FLOYD	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1806 S Floyd St Louisville	
3.)	CIRCUIT NAME AND NUMBER	FL1496	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Floyd St, Warnock St, & Crittenden Dr - SE of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	3.8	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,122	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/12/2016	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.5%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	62.0%	
	Overload-	0.0%	
	Planned Work-	37.5%	
	Trees-	0.0%	
	Utility Equipment-	0.0%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	29.12	

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 29.12

10.) 2020 SAIDI 79.86

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.75

12.) 2020 SAIFI 1.77

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 70 of 217

Wolfe

	***************************************
1.) SUBSTATION NAME AND NUMBER	FAIRMOUNT
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 10713 Fairmount Rd Louisville
3.) CIRCUIT NAME AND NUMBER	FM1256
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Bardstown Rd, Lands Ln, & HWY 44 - S of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	36.5
6.) CUSTOMER COUNT FOR THIS CIRCUIT	1,911
7.) DATE OF LAST CIRCUIT TRIM (VM)	08/25/2018
8.) 2020 OUTAGES BY CAUSE	
Animal	- 0.0%
Construction	- 0.0%
Lightning	- 0.0%
Non-Company	- 0.0%
Other/Unknown	- 0.7%
Overload	- 0.0%
Planned Work	- 0.4%
Trees	- 93.7%

Vehicle- 0.0%

Utility Equipment- 5.1%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	23.68

10.) **2020 SAIDI** 67.68

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40

12.) **2020 SAIFI** 1.32

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 71 of 217

Wolfe

		Wolfe
1.)	SUBSTATION NAME AND NUMBER	FAIRMOUNT
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 10713 Fairmount Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	FM1257
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Brentlinger Ln, Seatonville Rd, Brush Run Rd, & Routt Rd - E of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	93.1
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,011
7.)	DATE OF LAST CIRCUIT TRIM (VM)	01/05/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.5%
	Construction- 0.0%	
	Lightning-	3.0%
	Non-Company-	0.0%
	Other/Unknown-	26.2%

Overload- 0.0%

Planned Work- 12.8%

Trees- 51.9%

Utility Equipment- 5.5%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	65.12
10.) <b>2020 SAIDI</b>	128.01
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.47
12.) <b>2020 SAIFI</b>	0.89

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 72 of 217

0.39

0.41

Wolfe

		1, 5225
1.)	SUBSTATION NAME AND NUMBER	FORTY FOURTH
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 128 N 44th St - Louisville
3.)	CIRCUIT NAME AND NUMBER	F00001
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - N 44th St & Bank St - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	1.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	212
7.)	DATE OF LAST CIRCUIT TRIM (VM)	04/18/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	9.2%
	Overload-	0.0%
	Planned Work-	16.8%
	Trees-	43.4%
	Utility Equipment-	30.5%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	13.09
10.)	2020 SAIDI	16.03

12.) 2020 SAIFI13.) LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

Trees Trimmed in 2020

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 73 of 217

Wolfe

			Wolfe
1.)	SUBSTATION NAME AND NUMBER	FERN VALLEY	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1256 Old Fern Valley Rd Louisville	
3.)	CIRCUIT NAME AND NUMBER	FV1135	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Forest Dr, E Indian Trl, & Poplar Level Rd - N of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	17.0	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,101	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	04/15/2017	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	1.3%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.2%	
	Other/Unknown-	12.9%	
	Overload-	0.0%	
	Planned Work-	29.4%	
	Trees-	1.1%	
	Utility Equipment-	4.0%	

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)

57.70

۱ ( ۱	2020 SAIDI	61.89
LU.,	2020 JAIDI	01.05

Vehicle- 51.1%

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.66

12.) **2020 SAIFI** 1.27

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 74 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	FERN VALLEY
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1256 Old Fern Valley Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	FV1138
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Fern Valley Rd & Shepherdsville Rd - E of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	10.9
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,554
7.)	DATE OF LAST CIRCUIT TRIM (VM)	04/01/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.8%
	Overload-	0.0%
	Planned Work-	3.5%
	Trees-	0.1%
	Utility Equipment-	94.1%
	Vehicle-	1.5%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	25.84
10.)	2020 SAIDI	35.10
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.42
12.)	2020 SAIFI	0.24

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 75 of 217

114.06

Wolfe

			VV UITE
1.)	SUBSTATION NAME AND NUMBER	FERN VALLEY	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1256 Old Fern Valley Rd Louisville	
3.)	CIRCUIT NAME AND NUMBER	FV1139	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Industrial Blvd, Grade Ln, & Knopp Ave - W of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	8.5	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	216	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	04/01/2017	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.0%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	0.6%	
	Overload-	0.0%	
	Planned Work-	2.8%	
	Trees-	94.5%	
	Utility Equipment-	1.3%	
	Vehicle-	0.9%	

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)

10.) **2020 SAIDI** 252.47

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.35

12.) 2020 SAIFI 2.11

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

Tree Trim Scheduled for 2021

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 76 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	FERN VALLEY
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1256 Old Fern Valley Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	FV1142
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Mile of Sunshine Dr, Whispering Hills Blvd, & Yellow Sands Dr - E of Substation

19.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 2,173

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/15/2017

8.) 2020 OUTAGES BY CAUSE

5.) TOTAL CIRCUIT LENGTH (MILES)

Animal- 0.3%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.1%

Trees- 0.8%

Utility Equipment- 0.6%

Vehicle- 98.3%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	87.52
10.) <b>2020 SAIDI</b>	356.36
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.43

12.) **2020 SAIFI** 0.80

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 77 of 217

Wolfe

	Wolfe
1.) SUBSTATION NAME AND NUMBER	FERN VALLEY
2.) SUBSTATION LOCATION (COUNTY-ROAD-	<b>FOWN)</b> Jefferson - 1256 Old Fern Valley Rd Louisville
3.) CIRCUIT NAME AND NUMBER	FV1143
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOW	N) Louisville - Preston Hwy, Clay Ave, Minor Ln, Foreman Ln, & Bonaventure Blvd - S of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	17.9
6.) CUSTOMER COUNT FOR THIS CIRCUIT	1,504
7.) DATE OF LAST CIRCUIT TRIM (VM)	04/01/2017
8.) 2020 OUTAGES BY CAUSE	
	Animal- 0.1%
Const	ruction- 0.0%
Li	ghtning- 2.5%
Non-Co	mpany- 0.0%
Other/U	known- 20.4%
0	verload- 0.0%
Planne	d Work- 11.1%
	Trees- 5.5%
Utility Equ	ipment- 31.4%
	Vehicle- 29.0%
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	101.97

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	
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10.) <b>2020 SAIDI</b>	113.50
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.58
12.) <b>2020 SAIFI</b>	2.13

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 78 of 217

Wolfe

1.) SUBSTATION NAME AND NUMBER	FERN VALLEY
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1256 Old Fern Valley Rd Louisville
3.) CIRCUIT NAME AND NUMBER	FV1144
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Preston Hwy & Oaklawn Dr - S of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	1.2
6.) CUSTOMER COUNT FOR THIS CIRCUIT	30
7.) DATE OF LAST CIRCUIT TRIM (VM)	04/15/2017
8.) 2020 OUTAGES BY CAUSE	
Animal	- 0.0%
Construction-	- 0.0%
Lightning	- 0.0%
Non-Company-	- 0.0%
Other/Unknown-	- 100.0%
Overload-	- 0.0%
Planned Work-	- 0.0%
Trees	- 0.0%
Utility Equipment-	0.0%
Vehicle-	- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	32.84
10.) <b>2020 SAIDI</b>	1.00
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.39
12.) 2020 SAIFI	1.00

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 79 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	FERN VALLEY
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1256 Old Fern Valley Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	FV1478
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Preston Hwy, & Standiford Ave/Ln - NW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	6.9
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	115
7.)	DATE OF LAST CIRCUIT TRIM (VM)	03/29/2021
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	100.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	66.15

- (- (-		
10.) <b>2020 SAIDI</b>	10.39	
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.94	
12 ) 2020 SAIFI	0.99	

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 80 of 217

74.79

Wolfe

1.)	SUBSTATION NAME AND NUMBER	GAULBERT
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 2950 Wilson Ave - Louisville
3.)	CIRCUIT NAME AND NUMBER	GA0002
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Wilson Ave - SW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	0.1
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	17
7.)	DATE OF LAST CIRCUIT TRIM (VM)	01/11/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	100.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	47.96

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.27

12.) 2020 SAIFI 0.35

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

Continue to Monitor

10.) 2020 SAIDI

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 81 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	GILLIGAN
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 35th Street & Gilligan Ave - Louisville

3.) CIRCUIT NAME AND NUMBER GI0002

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - S 32nd St - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 167

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/04/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 72.4%

Other/Unknown- 13.7%

Overload- 0.0%

Planned Work- 14.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	101.42
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10.) 2020 SAIDI 167.90

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.40

12.) 2020 SAIFI 2.17

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 82 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	GILLIGAN
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 35th Street & Gilligan Ave - Louisville
3.)	CIRCUIT NAME AND NUMBER	GI0003
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Bank St, N 39th St, & S 38th St - W of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	3.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	465
7.)	DATE OF LAST CIRCUIT TRIM (VM)	04/04/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	6.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	13.4%
	Overload-	0.0%
	Planned Work-	5.2%
	Trees-	0.0%
	Utility Equipment-	75.4%
	Vehicle-	0.0%

۵١	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	39.60
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI	39.00

10.) 2020 SAIDI 55.27

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.49

12.) **2020 SAIFI** 1.28

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 83 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	GRADE LANE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 6909 Grade Lane - Louisville

3.) CIRCUIT NAME AND NUMBER GL1330

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Shepherdsville - Grade Lane - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 2

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/01/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 299.91

10.) **2020 SAIDI** 997.14

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.38

12.) 2020 SAIFI 0.50

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 84 of 217

Wolfe

1.	SUBSTATION NAME AND NUMBER	GRADE LANE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 6909 Grade Lane - Louisville

3.) CIRCUIT NAME AND NUMBER GL1331

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Shepherdsville - Grade Lane - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/01/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	561.43
٠,١	CINCUIT 3 TEAN AVENAGE (SAIDI)	JU1. <del>4</del> J

10.) 2020 SAIDI 1881.73

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.50

12.) 2020 SAIFI 1.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 85 of 217

Wolfe

1.	SUBSTATION NAME AND NUMBER	GRADE LANE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 6909 Grade Lane - Louisville

3.) CIRCUIT NAME AND NUMBER GL1332

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Shepherdsville - Grade Lane - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/01/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 221.10

10.) 2020 SAIDI 596.40

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.50

12.) 2020 SAIFI 1.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 86 of 217

Wolfe

1 \	SUBSTATION NAME AND NUMBER	CDADELANIE
1.)	SUBSTATION NAME AND NUMBER	GRADE LANE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 6909 Grade Lane - Louisville

3.) CIRCUIT NAME AND NUMBER GL1335

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Grade Ln & Midfield Access Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) Underground Circuit

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (S</b>	SAIDI)	294.90

10.) **2020 SAIDI** 289.52

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40

12.) 2020 SAIFI 1.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 87 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	GRADY
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 1838 S 39th St. - Louisville

3.) CIRCUIT NAME AND NUMBER GR1124

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - I 264 East & Stratton Ave - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 253

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/05/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 27.5%

Utility Equipment- 72.5%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	23.06

10.) 2020 SAIDI 105.34

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.26

12.) 2020 SAIFI 1.04

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 88 of 217

Wolfe

2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1838 S 39th St Louisville
3.)	CIRCUIT NAME AND NUMBER	GR1464
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Algonquin Pky, Virgina Ave, & S 43rd St - NW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	3.4

GRADY

6.) CUSTOMER COUNT FOR THIS CIRCUIT 776

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/16/2019

8.) 2020 OUTAGES BY CAUSE

1.) SUBSTATION NAME AND NUMBER

Animal- 0.0%

Construction- 0.0%

Lightning- 15.0%

Non-Company- 0.0%

Other/Unknown- 13.5%

Overload- 0.0%

Planned Work- 0.0%

Trees- 33.5%

Utility Equipment- 38.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	19.04
10.)	2020 SAIDI	89.78
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.03
12.)	2020 SAIFI	4.00

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 89 of 217

0.24

0.36

Wolfe

1.)	SUBSTATION NAME AND NUMBER	HALE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - Rear 185 Hale Ave - Louisville
3.)	CIRCUIT NAME AND NUMBER	HA0002
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Dixie Hwy, Hale Ave, Dumesnil St, & St Louis Ave - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	562
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/09/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.7%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	1.8%
	Other/Unknown-	0.5%
	Overload-	0.0%
	Planned Work-	30.6%
	Trees-	0.0%
	Utility Equipment-	5.1%
	Vehicle- 61.4%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	31.01
10.)	2020 SAIDI	72.33

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 90 of 217

Wolfe

1.) SUBSTATION NAME AND NUMBER	HURSTBOURNE
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1830 Plantside Drive - Louisville
3.) CIRCUIT NAME AND NUMBER	HB1141
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Embassy Square Blvd, Doral Ct, & Bunsen Pky - NW of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	7.3
6.) CUSTOMER COUNT FOR THIS CIRCUIT	920
7.) DATE OF LAST CIRCUIT TRIM (VM)	12/14/2019
8.) 2020 OUTAGES BY CAUSE	
Animal	- 0.0%
Construction-	- 0.0%
Lightning	- 0.0%
Non-Company-	- 0.0%
Other/Unknown-	- 0.0%
Overload-	- 0.0%
Planned Work-	- 0.0%
Trees	- 0.0%
Utility Equipment-	0.4%
Vehicle-	- 99.6%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	13.90

10.) **2020 SAIDI** 7.77

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.08

12.) **2020 SAIFI** 0.09

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 91 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	HURSTBOURNE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1830 Plantside Drive - Louisville
3.)	CIRCUIT NAME AND NUMBER	HB1144
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Old Hickory Rd, Waterson Trl, & Blankenbaker Access Dr - SE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	6.5
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	279
7.)	DATE OF LAST CIRCUIT TRIM (VM)	11/26/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	20.6%
	Trees-	78.8%
	Utility Equipment-	0.6%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	72.83
10.)	2020 SAIDI	162.51
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.92
12.)	2020 SAIFI	0.25

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 92 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	HURSTBOURNE
	3003 IATION NAIVIL AND NOIVIDEN	поизтро

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 1830 Plantside Drive - Louisville

3.) CIRCUIT NAME AND NUMBER HB1147

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - I 64 W, Linn Station Rd, & Timberwood Cir - NNW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 10.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 570

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/14/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 10.6%

Construction- 0.0%

Lightning- 8.2%

Non-Company- 0.0%

Other/Unknown- 59.0%

Overload- 0.0%

Planned Work- 0.3%

Trees- 21.2%

Utility Equipment- 0.7%

Vehicle- 0.0%

	9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	142.94
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10.) **2020 SAIDI** 366.09

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.35

12.) 2020 SAIFI 5.88

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 93 of 217

Wolfe

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1830 Plantside Drive - Louisville
3.) CIRCUIT NAME AND NUMBER	HB1148
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Old Hickory Rd, Taylorsville Rd, College Dr, & Rown Tree Rd - S of Substation

HURSTBOURNE

5.) TOTAL CIRCUIT LENGTH (MILES) 19.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 2,250

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/17/2020

8.) 2020 OUTAGES BY CAUSE

1.) SUBSTATION NAME AND NUMBER

Animal- 3.5%

Construction- 0.0%

Lightning- 3.4%

Non-Company- 0.0%

Other/Unknown- 8.0%

Overload- 0.0%

Planned Work- 22.4%

Trees- 60.1%

Utility Equipment- 2.3%

Vehicle- 0.3%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	37.66
10.)	2020 SAIDI	60.17
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.28
12.)	2020 SAIFI	0.38

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

Trees Trimmed in 2020

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 94 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	HURSTBOURNE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1830 Plantside Drive - Louisville
3.)	CIRCUIT NAME AND NUMBER	HB1149
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Plantside Dr, Production Dr, & Research Dr - E of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.4
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	31
7.)	DATE OF LAST CIRCUIT TRIM (VM)	11/26/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	100.0%
	Trees-	0.0%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	14.66
10.)	2020 SAIDI	19.65
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.17
12.)	2020 SAIFI	0.03

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 95 of 217

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		V	vone
1.)	SUBSTATION NAME AND NUMBER	HURSTBOURNE	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1830 Plantside Drive - Louisville	
3.)	CIRCUIT NAME AND NUMBER	HB1150	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Bunsen Way & Production Dr - E of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.8	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	324	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	11/26/2019	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.3%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	84.9%	
	Overload-	0.0%	
	Planned Work-	13.6%	
	Trees-	0.0%	
	Utility Equipment-	1.2%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	20.10	
40 ١		40.00	

10.) **2020 SAIDI** 48.80

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.14

12.) **2020 SAIFI** 0.44

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 96 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	HILLCREST
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 3015 Frankfort Ave. - Louisville

3.) CIRCUIT NAME AND NUMBER HC1292

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Grinstead Dr, Lexington Rd, & Alta Vista Rd - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 14.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 848

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/14/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 12.2%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 11.4%

Overload- 0.0%

Planned Work- 4.2%

Trees- 14.6%

Utility Equipment- 57.6%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	58.74

10.) 2020 SAIDI 82.11

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.55

12.) 2020 SAIFI 0.76

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 97 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	HILLCREST
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3015 Frankfort Ave Louisville
3.)	CIRCUIT NAME AND NUMBER	HC1431
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Hillcrest Ave & Zorn Ave - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.2
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	4
7.)	DATE OF LAST CIRCUIT TRIM (VM)	04/24/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	100.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	80.59
10.)	2020 SAIDI	88.93
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.25
12.)	2020 SAIFI	0.25

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 98 of 217

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	HILLCREST
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3015 Frankfort Ave Louisville
3.)	CIRCUIT NAME AND NUMBER	HC1433
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - No Road - E of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	0.1
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1
7.)	DATE OF LAST CIRCUIT TRIM (VM)	04/24/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	100.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)

10.) **2020 SAIDI** 45.37

Utility Equipment- 0.0%

Vehicle- 0.0%

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.20

12.) **2020 SAIFI** 1.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 99 of 217

Wolfe

1 )	SUBSTATION NAME AND NUMBER	HILLCREST

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 3015 Frankfort Ave. - Louisville

3.) CIRCUIT NAME AND NUMBER HC1434

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Stilz Ave, Lexington Rd, & Alta Vista Rd - S & E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 3.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/24/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 84.48

10.) 2020 SAIDI 369.92

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.65

12.) 2020 SAIFI 1.00

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 100 of 217

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0.15

Wolfe

1.)	SUBSTATION NAME AND NUMBER	HERMAN
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - Rear 3619 Jefferson St - Louisville
3.)	CIRCUIT NAME AND NUMBER	HE0003
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - 38th St, Amy Ave, & W Muhammad Ali Blvd - N & SW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	3.1
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	648
7.)	DATE OF LAST CIRCUIT TRIM (VM)	03/21/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal- 0.0%	
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	32.2%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	14.9%
	Utility Equipment-	52.8%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	21.64
10.)	2020 SAIDI	11.23

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

12.) 2020 SAIFI

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 101 of 217

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1.)	SUBSTATION NAME AND NUMBER	HIGHLAND	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1917 Stevens Ave Louisville	
3.)	CIRCUIT NAME AND NUMBER	HI1102	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Bardstown Rd, Baringer Ave & Highland Ave - NW of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	5.7	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,492	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	03/31/2017	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.0%	
	Construction-	0.0%	
	Lightning-	1.2%	
	Non-Company-	0.0%	
	Other/Unknown-	30.9%	
	Overload-	0.0%	
	Planned Work-	10.0%	
	Trees-	10.6%	
	Utility Equipment-	30.1%	
	Vehicle-	17.3%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	96.95	

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	96.95
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10.) 2020 SAIDI 65.44

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.54

12.) 2020 SAIFI 2.39

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 102 of 217

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2 ) SUBSTATION LOCATION (COUNTY-POAD-TOWN)	lofferson 1017 Stayons Ava Lauisvilla

3.) CIRCUIT NAME AND NUMBER HI1473

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Eastern Pky, Poplar Level Rd, & Nightingale Rd - SW of Substation

HIGHLAND

5.) TOTAL CIRCUIT LENGTH (MILES) 5.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,180

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/01/2017

8.) 2020 OUTAGES BY CAUSE

1.) SUBSTATION NAME AND NUMBER

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 1.7%

Trees- 0.0%

Utility Equipment- 98.3%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	56.92
10.) <b>2020 SAIDI</b>	62.94
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.87
12.) <b>2020 SAIFI</b>	1.30

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

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Wolfe

1.	SUBSTATION NAME AND NUMBER	HIGHLAND
	, SOBSTATION NAME AND NOMBER	HIGHLAND

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 1917 Stevens Ave. - Louisville

3.) CIRCUIT NAME AND NUMBER HI1475

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Cherokee Pky, Bardstown Rd, & Richmond Dr - N & SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 21

7.) DATE OF LAST CIRCUIT TRIM (VM) 04/01/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 59.6%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 40.4%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	57.37
ر.ر	CINCUIT 3 TEAN AVENAGE (SAIDI)	J/

10.) 2020 SAIDI 103.13

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.80

12.) **2020 SAIFI** 2.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 104 of 217

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1.)	SUBSTATION NAME AND NUMBER	HARRODS CREEK	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 6611 Del Haven Rd Louisville	
3.)	CIRCUIT NAME AND NUMBER	HK1234	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - HWY 42, Wolf Pen Branch Rd, & Barbour Ln - SE of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	52.5	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,998	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	11/13/2018	
8.)	2020 OUTAGES BY CAUSE		
	Animal- 0.5%		
	Construction- 0.3%		
	Lightning- 0.1%		
	Non-Company- 0.0%		
	Other/Unknown-	1.6%	
	Overload- 0.0%		
	Planned Work- 6.0%		
	Trees- 87.9%		
	Utility Equipment- 3.5%		
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	239.77	
10.)	2020 SAIDI	377.20	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	2.22	
12.)	2020 SAIFI	1.09	

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 105 of 217

Wolfe

		Wolfe
1.)	SUBSTATION NAME AND NUMBER	HARRODS CREEK
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 6611 Del Haven Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	HK1242
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - River Rd, Shirley Ave, & Duroc Ave - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	10.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	585
7.)	DATE OF LAST CIRCUIT TRIM (VM)	06/09/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	3.8%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	3.5%
	Overload-	0.0%
	Planned Work-	0.2%
	Trees-	91.5%
	Utility Equipment-	0.0%
	Vehicle-	1.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	18.51

10.) **2020 SAIDI** 44.47

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.15

12.) **2020 SAIFI** 0.29

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

## Case Nos. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 106 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	HARRODS CREEK
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 6611 Del Haven Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	HK1243
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - US 42, Covered Bridge Rd, Rose Island Rd, & River Bluff Rd - NNE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	53.2
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,493
7.)	DATE OF LAST CIRCUIT TRIM (VM)	04/20/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.1%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	18.7%
	Overload-	0.0%
	Planned Work-	3.8%
	Trees-	72.4%
	Utility Equipment-	3.9%
	Vehicle-	1.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	197.00
10.)	2020 SAIDI	267.29
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.87
12.)	2020 SAIFI	1.83

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

# Case Nos. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	HARMONY LANDING
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Oldham - 11943 W Hwy 42 - Goshen
3.)	CIRCUIT NAME AND NUMBER	HL1155
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Goshen - Goshen Ln - NW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	15.1
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	381
7.)	DATE OF LAST CIRCUIT TRIM (VM)	01/13/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	18.3%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	2.8%
	Overload-	0.0%
	Planned Work-	3.4%
	Trees-	75.5%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	26.15
10.)	2020 SAIDI	39.69
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.31
12.)	2020 SAIFI	0.13

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 108 of 217

Wolfe

1.	SUBSTATION NAME AND NUMBER	HARMONY LANDING
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Oldham - 11943 W Hwy 42 - Goshen

3.) CIRCUIT NAME AND NUMBER HL1157

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Goshen - Meadowridge Trl, Hwy 1793, & Rose Island Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 33.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,280

7.) DATE OF LAST CIRCUIT TRIM (VM) 11/18/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.8%

Construction- 0.0%

Lightning- 31.9%

Non-Company- 4.3%

Other/Unknown- 5.4%

Overload- 0.0%

Planned Work- 0.1%

Trees- 52.9%

Utility Equipment- 4.6%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	307.28	

10.) **2020 SAIDI** 710.13

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.62

12.) **2020 SAIFI** 2.94

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

Reliability Improvements Scheduled for 2021

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	HARMONY LANDING
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Oldham - 11943 W Hwy 42 - Goshen
3.)	CIRCUIT NAME AND NUMBER	HL1158
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Goshen - US 42 & Buckeye Ln - NE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	31.9
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	521
7.)	DATE OF LAST CIRCUIT TRIM (VM)	11/10/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.1%
	Construction-	1.2%
	Lightning-	7.6%
	Non-Company-	0.0%
	Other/Unknown-	1.8%
	Overload-	0.0%
	Planned Work-	3.2%
	Trees-	77.2%
	Utility Equipment-	8.9%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	216.82
10.)	2020 SAIDI	234.04
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.53
12.)	2020 SAIFI	1.04

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

Tree Trim Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 110 of 217

Wolfe

1.) SUBSTATION NAME AND NUMBER HANG	COCK
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 630 E Caldwell St - Louisville

3.) CIRCUIT NAME AND NUMBER HN1200

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Shelby St, E Broadway, Baxter Ave, & Cherokee Rd - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 6.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,876

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/06/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 1.4%

Construction- 0.0%

Lightning- 37.4%

Non-Company- 0.0%

Other/Unknown- 1.8%

Overload- 0.0%

Planned Work- 21.8%

Trees- 8.5%

Utility Equipment- 29.1%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SA</b>	(IDI)	59.88
٦.١	CINCUIT 5 TEAN AVENAGE (3A		33.0

10.) **2020 SAIDI** 37.38

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.90

12.) 2020 SAIFI 1.19

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 111 of 217

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1.)	SUBSTATION NAME AND NUMBER	HANCOCK
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 630 E Caldwell St - Louisville
3.)	CIRCUIT NAME AND NUMBER	HN1204
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - S Preston St, E Broadway, S Shelby St, & E Madison St - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	8.6
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,209
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/06/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.6%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	71.3%
	Overload-	0.0%
	Planned Work-	3.8%
	Trees-	0.0%
	Utility Equipment-	24.2%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	25.16
10.)	2020 SAIDI	30.43
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.58

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

Continue to Monitor

12.) 2020 SAIFI

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	INTERNATIONAL
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 5599 Cane Run Rd. - Louisville

3.) CIRCUIT NAME AND NUMBER IN1290

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Cane Run Rd, Greenbelt Hwy, & Rockaway Dr - ENE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 13.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 998

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/22/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 3.3%

Construction- 0.0%

Lightning- 17.1%

Non-Company- 0.0%

Other/Unknown- 11.5%

Overload- 0.0%

Planned Work- 3.8%

Trees- 6.2%

Utility Equipment- 53.8%

Vehicle- 4.2%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 86.68

10.) 2020 SAIDI 117.83

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.85

12.) 2020 SAIFI 1.92

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

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	INTERNATIONAL
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 5599 Cane Run Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	IN1298
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Cane Run Rd & Distribution Dr - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	3.7
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	43
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/22/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	3.6%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	80.2%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	16.2%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	50.52
10.)	2020 SAIDI	16.22

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

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Wolfe

AME AND NUMBER	JEFFERSONTOWN
J	IAME AND NUMBER

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 11412 Taylorsville Rd. - Louisville

3.) CIRCUIT NAME AND NUMBER JT1123

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Taylorsville Rd, I 265 S, & Eastwood Fisherville Rd - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 67.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,397

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/08/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 4.4%

Construction- 0.9%

Lightning- 0.7%

Non-Company- 0.0%

Other/Unknown- 4.2%

Overload- 0.0%

Planned Work- 0.3%

Trees- 55.5%

Utility Equipment- 33.9%

Vehicle- 0.0%

3.) CIRCUIT 3 TEAR AVERAGE (SAIDI) /4.0	9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	74.60
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10.) 2020 SAIDI 100.04

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.71

12.) 2020 SAIFI 0.81

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

Trees Trimmed in 2020

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 115 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	KENWOOD

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 115 Steedly Dr. - Louisville

3.) CIRCUIT NAME AND NUMBER KE1156

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Strawberry Ln, Southside Dr, & National TPke - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 12.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,249

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/19/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 8.4%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 12.6%

Overload- 0.0%

Planned Work- 7.4%

Trees- 0.6%

Utility Equipment- 62.3%

Vehicle- 8.7%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	45.74
ر.ر	CINCOLL 3 LEAN AVENAGE (SAIDI)	43.1

10.) 2020 SAIDI 77.96

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.42

12.) 2020 SAIFI 0.84

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 116 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	KENWOOD
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 115 Steedly Dr Louisville
3.)	CIRCUIT NAME AND NUMBER	KE1157
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - S 3rd St - NW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.0
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	299
7.)	DATE OF LAST CIRCUIT TRIM (VM)	12/19/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	4.9%
	Trees-	0.0%
	Utility Equipment-	9.7%
	Vehicle-	85.4%

24.28

10.) **2020 SAIDI** 49.85

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.25

12.) **2020 SAIFI** 0.76

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 117 of 217

Wolfe

			0220
1.)	SUBSTATION NAME AND NUMBER	KENWOOD	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 115 Steedly Dr Louisville	
3.)	CIRCUIT NAME AND NUMBER	KE1159	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Kenwood Dr, Homestead Dr, & Southside Dr - SW of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	12.4	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,426	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	03/18/2017	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	3.8%	
	Construction-	8.0%	
	Lightning-	11.2%	
	Non-Company-	10.0%	
	Other/Unknown-	7.9%	
	Overload-	0.0%	
	Planned Work-	31.7%	
	Trees-	20.5%	
	Utility Equipment-	5.0%	
	Vehicle-	1.8%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	51.78	
10.)	2020 SAIDI	89.23	

10.) 2020 SAIDI 89.23

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.71

12.) **2020 SAIFI** 2.10

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 118 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	KENWOOD
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 115 Steedly Dr Louisville
3.)	CIRCUIT NAME AND NUMBER	KE1161
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Southside Dr, 3rd St, & W Kenwood Way - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	5.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	731
7.)	DATE OF LAST CIRCUIT TRIM (VM)	03/18/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 11.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 5.4%

Overload- 0.0%

Planned Work- 6.8%

Trees- 71.6%

Utility Equipment- 5.2%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	52.17
10.)	2020 SAIDI	66.05
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.62
12.)	2020 SAIFI	0.83

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

Tree Trim Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 119 of 217

Wolfe
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1.) SUBSTATION NAME AND NUMBER	KENWOOD
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 115 Steedly Dr Louisville
3.) CIRCUIT NAME AND NUMBER	KE1162
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Strawberry Ln & Eiler Ave - E of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	2.5
6.) CUSTOMER COUNT FOR THIS CIRCUIT	76
7.) DATE OF LAST CIRCUIT TRIM (VM)	12/19/2020
8.) 2020 OUTAGES BY CAUSE	
Animal-	0.0%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	39.2%
Overload-	0.0%
Planned Work-	60.8%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	18.54
10.) <b>2020 SAIDI</b>	24.49
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.12
12.) <b>2020 SAIFI</b>	0.19

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 120 of 217

Wol	fe
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1.) SUBSTATION NAME AND NUMBER	LYNN
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - Rear of 2071 S Preston St & Lynn St - Louisville
3.) CIRCUIT NAME AND NUMBER	LN0001
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Shelby St - NE & SE of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	3.0
6.) CUSTOMER COUNT FOR THIS CIRCUIT	534
7.) DATE OF LAST CIRCUIT TRIM (VM)	07/21/2018
8.) 2020 OUTAGES BY CAUSE	
Animal	- 0.0%
Construction-	- 0.0%
Lightning	- 0.0%
Non-Company-	- 0.0%
Other/Unknown-	- 54.0%
Overload-	- 0.0%

Trees- 2.2%

Utility Equipment- 16.5%

Planned Work- 3.5%

Vehicle- 23.8%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	47.48
10.) <b>2020 SAIDI</b>	74.29
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.49
12.) 2020 SAIFI	1.28

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

Wolfe

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 121 of 217

1.) SUBSTATION NAME AND NUMBER LYNN

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - Rear of 2071 S Preston St & Lynn St - Louisville

3.) CIRCUIT NAME AND NUMBER LN0002

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Preston St & Miller Ave - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 480

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/21/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 9.7%

Planned Work- 63.6%

Trees- 7.5%

Utility Equipment- 19.2%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	35.87
ו.כ	CIRCUIT 5 TEAR AVERAGE (SAIDI)	33.07

10.) 2020 SAIDI 38.69

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.33

12.) 2020 SAIFI 0.35

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 122 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LOCUST
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 2929 Preston Hwy - Louisville
3.)	CIRCUIT NAME AND NUMBER	LO1191
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Hess Ln & Polar Level Rd - E of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	1.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	55
7.)	DATE OF LAST CIRCUIT TRIM (VM)	12/21/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	77.6%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	22.4%

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

10.) <b>2020 SAIDI</b>	64.26
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.03
12.) <b>2020 SAIFI</b>	1.95

36.99

Vehicle- 0.0%

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 123 of 217

Wolfe

1.) SUBSTATION NAME AND NUMBER	LYNDON SOUTH

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 918 Ormsby Ln. - Bellemeade

3.) CIRCUIT NAME AND NUMBER LS1241

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)**Bellemeade - Old Whipps Mill Rd, Dorchester Rd, & Shelbyville Rd - S & SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 5.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 454

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/23/2021

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 12.6%

Overload- 0.0%

Planned Work- 58.1%

Trees- 27.8%

Utility Equipment- 1.5%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 83.06

10.) 2020 SAIDI 104.99

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.62

12.) 2020 SAIFI 0.90

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

Trees Trimmed in 2021

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 124 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LYNDON SOUTH
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 918 Ormsby Ln Louisville
3.)	CIRCUIT NAME AND NUMBER	LS1243
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Ormsby Ln & LaGrange Rd - NE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	9.5
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	809
7.)	DATE OF LAST CIRCUIT TRIM (VM)	04/20/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	3.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	20.1%
	Overload-	3.5%
	Planned Work-	7.2%
	Trees-	7.1%
	Utility Equipment-	0.8%
	Vehicle-	58.4%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	43.69
10 \	2020 SAIDI	29 33

10.) **2020 SAIDI** 29.33

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.66

12.) **2020 SAIFI** 0.81

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 125 of 217

Wolfe

	***************************************
1.) SUBSTATION NAME AND NUMBER	LYNDON SOUTH
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 918 Ormsby Ln Bellemeade
3.) CIRCUIT NAME AND NUMBER	LS1244
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Lyndon - New La Grange Rd, La Grange Rd, Whipps Mill Rd - N & NE of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	16.9
6.) CUSTOMER COUNT FOR THIS CIRCUIT	1,902
7.) DATE OF LAST CIRCUIT TRIM (VM)	03/31/2017
8.) 2020 OUTAGES BY CAUSE	
Animal-	- 2.1%
Construction	- 0.2%
Lightning	- 0.0%
Non-Company	- 0.0%
Other/Unknown	- 14.3%
Overload	- 1.2%
Planned Work	- 6.3%
Trees	- 48.0%

Utility Equipment- 27.9%

Vehicle- 0.0%

9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	67.74
10.) <b>2020 SAIDI</b>	79.88
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.46
12.) 2020 SAIFI	0.54

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

Tree Trim Scheduled for 2021

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 126 of 217

Wolfe

		·	. 0110
1.)	SUBSTATION NAME AND NUMBER	LYNDON SOUTH	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 918 Ormsby Ln Louisville	
3.)	CIRCUIT NAME AND NUMBER	LS1246	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - New La Grange Rd - NW of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.1	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	385	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	01/23/2021	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	41.6%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	0.0%	
	Overload-	0.0%	
	Planned Work-	3.6%	
	Trees-	0.0%	
	Utility Equipment-	54.8%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	20.51	

10.) **2020 SAIDI** 49.14

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.27

12.) **2020 SAIFI** 0.49

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 127 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	LYNDON
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 8407 LaGrange Rd. - Louisville

3.) CIRCUIT NAME AND NUMBER LY1111

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Ormsby Ln, Herr Ln, & Graymoor Rd - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 24.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 2,147

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/23/2021

8.) 2020 OUTAGES BY CAUSE

Animal- 3.5%

Construction- 1.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 18.1%

Overload- 0.0%

Planned Work- 8.5%

Trees- 59.7%

Utility Equipment- 9.2%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 92.81

10.) 2020 SAIDI 135.01

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.60

12.) 2020 SAIFI 0.92

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

Trees Trimmed in 2021

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 128 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	MILL CREEK - LGE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 14660 Dixie Hwy - Louisville

3.) CIRCUIT NAME AND NUMBER MC1261

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Dixie Hwy, Pendleton Rd, & Blevins Gap Rd - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 63.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 2,423

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/04/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 1.5%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 8.5%

Overload- 0.0%

Planned Work- 18.2%

Trees- 34.2%

Utility Equipment- 4.7%

Vehicle- 32.9%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	110.88
ر. ر	CINCOLL 2 LEAN AVENAGE (SAID	1)

10.) **2020 SAIDI** 92.71

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.08

12.) 2020 SAIFI 1.79

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

Reliability Improvements Completed in 2020

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 129 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	MAGAZINE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 646 S 13th St. - Louisville

3.) CIRCUIT NAME AND NUMBER MG0411

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - W Broadway, 15th St, Garland Ave, & 16th St - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 370

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/01/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 1.1%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.3%

Overload- 0.0%

Planned Work- 11.2%

Trees- 4.7%

Utility Equipment- 0.2%

Vehicle- 82.5%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	83.53
9.1	CIRCUIT 5 YEAR AVERAGE (SAIDI)	83.

10.) 2020 SAIDI 134.49

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.95

12.) 2020 SAIFI 1.21

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 130 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	MAGAZINE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 646 S 13th St. - Louisville

3.) CIRCUIT NAME AND NUMBER MG0451

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - W Broadway - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 31

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/01/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 100.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	22.44
٠.,		22.TT

10.) **2020 SAIDI** 27.06

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.09

12.) 2020 SAIFI 0.10

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 131 of 217

Wolfe

		.,,
1.)	SUBSTATION NAME AND NUMBER	MAGAZINE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 646 S 13th St Louisville
3.)	CIRCUIT NAME AND NUMBER	MG0452
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - 12th St, W Kentucky St, & W Oak St - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.5
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	60
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/01/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	0.0%
	Vehicle-	100.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	112.20

3.) CINCOTT S TEAR AVERAGE (SAIDI)	112.20	
10.) <b>2020 SAIDI</b>	77.20	
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.68	
12.) <b>2020 SAIFI</b>	1.02	

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 132 of 217

0.21

1.00

Wolfe

		Wolle
1.)	SUBSTATION NAME AND NUMBER	MAGAZINE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 646 S 13th St Louisville
3.)	CIRCUIT NAME AND NUMBER	MG1327
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Magazine St, Dr W J Hodge St, & 28th St - W of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	3.0
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	15
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/01/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	100.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	0.65
10.)	2020 SAIDI	1.00

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

## Case Nos. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 133 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	MANSLICK
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 8703 Manslick Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	MK1291
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Saint Anthonys Church Rd - NW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	8.2
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	137
7.)	DATE OF LAST CIRCUIT TRIM (VM)	01/06/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	17.6%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	82.4%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	49.52
10.)	2020 SAIDI	92.15
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.64
12.)	2020 SAIFI	0.39

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 134 of 217

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		Wolfe
1.)	SUBSTATION NAME AND NUMBER	MANSLICK
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 8703 Manslick Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	MK1293
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Manslick Rd and Brown Austin Rd - SE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	18.6
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,268
7.)	DATE OF LAST CIRCUIT TRIM (VM)	01/26/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.7%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	51.7%
	Overload-	0.0%
	Planned Work-	1.9%
	Trees-	0.0%
	Utility Equipment-	36.3%
	Vehicle-	9.4%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	32.68
10 \	2020 SAIDI	30.19

10.) 2020 SAIDI 30.19

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.22

12.) 2020 SAIFI 0.23

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

# Case Nos. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	MANSLICK	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 8703 Manslick Rd Louisville	
3.)	CIRCUIT NAME AND NUMBER	MK1295	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Outer Loop, New Cut Rd, & Scottsdale Blvd - NE of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	19.0	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,772	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	10/07/2017	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.0%	
	Construction-	0.0%	
	Lightning-	0.4%	
	Non-Company-	0.0%	
	Other/Unknown-	0.9%	
	Overload-	0.0%	
	Planned Work-	45.1%	
	Trees-	6.4%	
	Utility Equipment-	47.3%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	42.09	
10.)	2020 SAIDI	46.24	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.49	
12.)	2020 SAIFI	0.28	

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 136 of 217

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1.)	SUBSTATION NAME AND NUMBER	MANSLICK	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 8703 Manslick Rd Louisville	
3.)	CIRCUIT NAME AND NUMBER	MK1296	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - 3rd St Rd, Christland Rd, & Manslick Rd - N of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	17.2	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,729	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	01/06/2018	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	6.6%	
	Construction-	0.0%	
	Lightning-	0.8%	
	Non-Company-	0.0%	
	Other/Unknown-	7.5%	
	Overload-	0.0%	
	Planned Work-	0.4%	
	Trees-	77.6%	
	Utility Equipment-	5.9%	
	Vehicle-	1.2%	

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)

43.31

10.) **2020 SAIDI** 89.06

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.35

12.) **2020 SAIFI** 0.45

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

# Case Nos. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	MANSLICK
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 8703 Manslick Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	MK1297
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Outer Loop & National Tpke - NE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	8.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	579
7.)	DATE OF LAST CIRCUIT TRIM (VM)	10/07/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	64.6%
	Overload-	0.0%
	Planned Work-	5.7%
	Trees-	0.5%
	Utility Equipment-	29.1%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	43.27
10.)	2020 SAIDI	50.95
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.58
12.)	2020 SAIFI	0.50

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

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	MANSLICK
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 8703 Manslick Rd. - Louisville

3.) CIRCUIT NAME AND NUMBER MK1298

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Manslick Rd, Belvins Gap Rd, & Brown Austin Rd - SW & SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 9.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 584

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/04/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.7%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 35.1%

Overload- 0.0%

Planned Work- 0.3%

Trees- 51.6%

Utility Equipment- 12.4%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	212.53
ر. ر	CINCOLL 2 LEAN AVENAGE (SAID)	212.5

10.) 2020 SAIDI 500.58

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.51

12.) 2020 SAIFI 2.21

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 139 of 217

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1.) SOBSTATION NAME AND NOTICE MICE LAND	1.)	.) SUBSTATION NAME AND NUMBER	MUD LANE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 4900 Mud Ln. - Louisville

3.) CIRCUIT NAME AND NUMBER ML1283

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Preston Hwy, Cooper Chapel Rd, & Charleswood Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 28.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,868

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/13/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.3%

Lightning- 0.3%

Non-Company- 0.0%

Other/Unknown- 52.3%

Overload- 0.0%

Planned Work- 0.3%

Trees- 0.9%

Utility Equipment- 46.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 87.85

10.) 2020 SAIDI 100.88

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.03

12.) 2020 SAIFI 1.38

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

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Wolfe

		Wolfe
1.)	SUBSTATION NAME AND NUMBER	MUD LANE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4900 Mud Ln Louisville
3.)	CIRCUIT NAME AND NUMBER	ML1284
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Christman Dr, Mount Washington Rd, & Cedar Creek Rd- E of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	49.0
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,515
7.)	DATE OF LAST CIRCUIT TRIM (VM)	08/24/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	14.4%
	Construction-	0.0%
	Lightning-	0.2%
	Non-Company-	0.0%
	Other/Unknown-	14.9%
	Overload-	0.0%
	Planned Work-	3.6%
	Trees-	54.2%
	Utility Equipment-	7.7%
	Vehicle-	5.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	22.92

10.) **2020 SAIDI** 32.80

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.25

12.) **2020 SAIFI** 0.36

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 141 of 217

0.34

0.43

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1.)	SUBSTATION NAME AND NUMBER	MUD LANE	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4900 Mud Ln Louisville	
3.)	CIRCUIT NAME AND NUMBER	ML1285	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Preston Hwy, Lees Ln, Rogers Ave, & Zoneton Rd - S of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	26.2	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,621	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	06/15/2019	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	10.9%	
	Construction-	0.0%	
	Lightning-	23.6%	
	Non-Company-	0.0%	
	Other/Unknown-	4.2%	
	Overload-	0.0%	
	Planned Work-	0.5%	
	Trees-	0.0%	
	Utility Equipment-	60.8%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	70.75	
10.)	2020 SAIDI	70.21	

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

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1.)	SUBSTATION NAME AND NUMBER	MUD LANE	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4900 Mud Ln Louisville	
3.)	CIRCUIT NAME AND NUMBER	ML1286	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Overdale Dr, Blossom Rd, Summers Dr, & Summit Dr - SW of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	26.7	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,542	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	06/15/2019	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	39.6%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	17.2%	
	Overload-	0.0%	
	Planned Work-	2.4%	
	Trees-	2.2%	
	Utility Equipment-	37.0%	
	Vehicle-	1.5%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	19.46	
10.)	2020 SAIDI	19.92	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.38	
12.)	2020 SAIFI	0.29	

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 143 of 217

Wolfe

2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4900 Mud Ln Louisville
3.)	CIRCUIT NAME AND NUMBER	ML1288

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Preston Hwy, Hebron Ln, & Bells Mill Rd - S of Substation

MUD LANE

5.) TOTAL CIRCUIT LENGTH (MILES) 38.0

6.) **CUSTOMER COUNT FOR THIS CIRCUIT** 1,586

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/03/2019

8.) 2020 OUTAGES BY CAUSE

1.) SUBSTATION NAME AND NUMBER

Animal- 4.5%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 57.6%

Overload- 0.0%

Planned Work- 2.3%

Trees- 2.4%

Utility Equipment- 29.7%

Vehicle- 3.6%

9.) <b>CIRCUIT 5 YEAR AVERAGE</b>	(SAIDI) 56.29
10.) <b>2020 SAIDI</b>	50.85
11.) CIRCUIT 5 YEAR AVERAGE	(SAIFI) 0.56
12.) <b>2020 SAIFI</b>	0.57

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

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 144 of 217

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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 4900 Mud Ln. - Louisville

3.) CIRCUIT NAME AND NUMBER ML1289

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Holgate Dr, 1st, 2nd, & 3rd St - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 6.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 813

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/13/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 2.5%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 20.5%

Overload- 0.0%

Planned Work- 0.6%

Trees- 29.5%

Utility Equipment- 46.9%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	108.91
9.1	CIRCUIT 5 YEAR AVERAGE (SAIDI)	100.3

10.) 2020 SAIDI 139.08

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.77

12.) 2020 SAIFI 3.48

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

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Wolfe

1.	SUBSTATION NAME AND NUMBER	MUD LANE

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 4900 Mud Ln. - Louisville

3.) CIRCUIT NAME AND NUMBER ML1290

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Southpoint Dr - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 2

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/13/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 38.12

10.) 2020 SAIDI 190.62

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.20

12.) 2020 SAIFI 1.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 146 of 217

Wolfe

		Wolfe
1.) SUBSTATION NAME AND NUMBER	MULDRAUGH	
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Meade - 100 Carpenter Test Rd Muldraugh	
3.) CIRCUIT NAME AND NUMBER	MU1101	
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Muldraugh - Carpenter Test Rd, Main St, & Dixie Hwy - E & SE of Substation	
5.) TOTAL CIRCUIT LENGTH (MILES)	10.4	
6.) CUSTOMER COUNT FOR THIS CIRCUIT	554	
7.) DATE OF LAST CIRCUIT TRIM (VM)	01/13/2018	
8.) 2020 OUTAGES BY CAUSE		
Animal	- 0.1%	
Construction	- 0.0%	
Lightning	- 0.0%	
Non-Company	- 0.0%	
Other/Unknown	- 30.8%	
Overload	- 0.0%	
Planned Work	- 0.0%	
Trees	- 0.0%	
Utility Equipment	- 69.1%	
Vehicle	- 0.0%	
9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	54.07	

9.)	<b>CIRCUIT 5 YEAR AVERAGE (</b>	SAIDI)	54.07

10.) <b>2020 SAIDI</b>	146.88

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.15

12.) **2020 SAIFI 2.46** 

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 147 of 217

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1.)	SUBSTATION NAME AND NUMBER	NACHAND	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 7201 Verona Way - Louisville	
3.)	CIRCUIT NAME AND NUMBER	NA1265	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Hunsinger Ln - NNE of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	16.0	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,343	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	06/13/2017	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	2.8%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	3.2%	
	Overload-	0.0%	
	Planned Work-	0.0%	
	Trees-	0.0%	
	Utility Equipment-	94.0%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	72.97	
10.)	2020 SAIDI	114.16	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.71	
12.)	2020 SAIFI	0.33	

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 148 of 217

Wolfe

1.) SUBSTATION NAME AND NUMBER	NACHAND

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 7201 Verona Way - Louisville

3.) CIRCUIT NAME AND NUMBER NA1271

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Nachand Ln, Watterson Trl, & Hurstbourne Pky - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 19.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,560

7.) DATE OF LAST CIRCUIT TRIM (VM) 05/31/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 1.3%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 93.4%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.2%

Utility Equipment- 5.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	21.04
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10.) 2020 SAIDI 45.99

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.19

12.) 2020 SAIFI 0.42

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

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	OLD HENRY
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 13601 Terra View Trail - Louisville
3.)	CIRCUIT NAME AND NUMBER	OH1170
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Old Henry Rd, Nelson Miller Pky, & Stanley Gault Pky - W of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	8.9
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	141
7.)	DATE OF LAST CIRCUIT TRIM (VM)	11/07/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	14.2%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	2.5%
	Trees-	0.0%
	Utility Equipment-	83.3%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	5.83

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.05

12.) **2020 SAIFI** 0.12

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

Continue to Monitor

10.) 2020 SAIDI

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 150 of 217

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1.) SUBSTATION NAME AND NUMBER	OKOLONA	
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 811 N 27th St Louisville	
3.) CIRCUIT NAME AND NUMBER	OK1272	
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Outer Loop, Shepherdsville Rd, & Applegate Ln - E of Substation	
5.) TOTAL CIRCUIT LENGTH (MILES)	18.6	
6.) CUSTOMER COUNT FOR THIS CIRCUIT	1,664	
7.) DATE OF LAST CIRCUIT TRIM (VM)	04/06/2019	
8.) 2020 OUTAGES BY CAUSE		
Animal	- 9.1%	
Construction	- 0.0%	
Lightning	- 0.3%	
Non-Company	- 1.0%	
Other/Unknown	- 13.1%	
Overload	- 0.0%	
Planned Work	- 6.5%	
Trees	- 66.1%	
Utility Equipment	- 3.8%	

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 40.76

10.) **2020 SAIDI** 58.20

Vehicle- 0.0%

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.53

12.) **2020 SAIFI** 1.00

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 151 of 217

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1.)	SUBSTATION NAME AND NUMBER	OKOLONA
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 811 N 27th St Louisville
3.)	CIRCUIT NAME AND NUMBER	OK1274
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Preston Hwy, Miles Ln, & Cooper Ave - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	12.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,341
7.)	DATE OF LAST CIRCUIT TRIM (VM)	05/04/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	12.5%
	Construction-	1.7%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	11.0%
	Overload-	0.0%
	Planned Work-	17.0%
	Trees-	42.7%
	Utility Equipment-	0.0%
	Vehicle-	15.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	40.49
10.)	2020 SAIDI	44.98
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.32
12.)	2020 SAIFI	0.22
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13.) LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 152 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	OXMOOR
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 8004 Shelbyville Rd - Louisville
3.)	CIRCUIT NAME AND NUMBER	OX1275
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Christian Way & Oxmoor Ln - W of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	0.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	96
7.)	DATE OF LAST CIRCUIT TRIM (VM)	Underground Circuit
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%

Trees- 0.0%

Overload- 0.0%

Planned Work- 100.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	88.81	
10.)	2020 SAIDI	1.00	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.40	
12.)	2020 SAIFI	1.00	

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 153 of 217

Wolfe

1.) SUBSTATION NAME AND NUMBER	OXMOOR
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 8004 Shelbyville Rd - Louisville
3.) CIRCUIT NAME AND NUMBER	OX1276
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - No Road - At Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	0.1
6.) CUSTOMER COUNT FOR THIS CIRCUIT	1
7.) DATE OF LAST CIRCUIT TRIM (VM)	Underground Circuit
8.) 2020 OUTAGES BY CAUSE	
Animal-	0.0%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	100.0%
Overload-	0.0%
Planned Work-	0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

Trees- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)

10.) <b>2020 SAIDI</b>	255.97
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.20
12.) <b>2020 SAIFI</b>	1.00

51.19

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 154 of 217

Wolfe

1.) SUBSTATION NAME AND NUMBER	OXMOOR
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 8004 Shelbyville Rd - Louisville
3.) CIRCUIT NAME AND NUMBER	OX1278
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Christian Way & Oxmoor Ln - W of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	1.0
6.) CUSTOMER COUNT FOR THIS CIRCUIT	5
7.) DATE OF LAST CIRCUIT TRIM (VM)	Underground Circuit
8.) 2020 OUTAGES BY CAUSE	
Animal-	0.0%
Construction-	100.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	0.0%
Overload-	0.0%
Planned Work-	0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	179.14	
10.) <b>2020 SAIDI</b>	106.33	
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.60	
12.) 2020 SAIFI	1.00	

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 155 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	OXMOOR
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 8004 Shelbyville Rd - Louisville
3.)	CIRCUIT NAME AND NUMBER	OX1279
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Shelbyville Rd, New La Grange Rd, & Wood Rd - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	13.2
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,467
7.)	DATE OF LAST CIRCUIT TRIM (VM)	08/22/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal- 0.2%	
	Construction- 0.0%	
	Lightning-	0.0%

Non-Company- 0.0%

Other/Unknown- 38.9%

Overload- 0.0%

Planned Work- 5.3%

Trees- 54.2%

Utility Equipment- 1.5%

Vehicle- 0.0%

9.) <b>CIRCUIT 5</b>	YEAR AVERAGE (SAIDI)	113.82	
10.) <b>2020 SAID</b>	I	156.99	
11.) CIRCUIT 5	YEAR AVERAGE (SAIFI)	1.15	
12.) <b>2020 SAIF</b>	I	1.57	

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

Trees Trimmed in 2020

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 156 of 217

Wolfe

1.) SUBSTATION NAME AND NUMBER	PIRTLE
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - Rear 1506 W Main St - Louisville
3.) CIRCUIT NAME AND NUMBER	PI0002
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - W Market St, 22nd St, 19th St, & Cedar St - W of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	4.7
6.) CUSTOMER COUNT FOR THIS CIRCUIT	525
7.) DATE OF LAST CIRCUIT TRIM (VM)	01/12/2019
8.) 2020 OUTAGES BY CAUSE	
Animal-	- 0.0%
Construction-	- 29.2%
Lightning	- 0.0%
Non-Company-	- 0.5%
Other/Unknown-	- 38.3%
Overload	- 0.0%

Trees- 0.0%

Utility Equipment- 11.1%

Planned Work- 20.3%

Vehicle- 0.7%

9.) CIRCUIT 5	YEAR AVERAGE (SAIDI)	98.03	
10.) <b>2020 SAI</b>	DI	45.75	
11.) CIRCUIT 5	YEAR AVERAGE (SAIFI)	0.79	
12.) 2020 SAIF	:1	1.25	

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 157 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	PIRTLE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - Rear 1506 W Main St - Louisville
3.)	CIRCUIT NAME AND NUMBER	PI0004
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Market St & 10th St - SE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	316
7.)	DATE OF LAST CIRCUIT TRIM (VM)	12/04/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	47.9%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.0%
	Utility Equipment-	52.1%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	44.40

J. CINCOII	3 TEAN AVENAGE (SAIDI)	77.70	
10.) <b>2020</b> SA	AIDI	48.63	
11.) CIRCUIT	5 YEAR AVERAGE (SAIFI)	0.35	

0.37

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

Continue to Monitor

12.) 2020 SAIFI

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 158 of 217

Wolfe

		•	, 0110	
1.)	SUBSTATION NAME AND NUMBER	PLEASURE RIDGE		
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4400 Atlas Power Rd Louisville		
3.)	CIRCUIT NAME AND NUMBER	PL1270		
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - St. Andrews Church Rd & St. Anthonys Church Rd - NE of Substation		
5.)	TOTAL CIRCUIT LENGTH (MILES)	24.3		
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,491		
7.)	DATE OF LAST CIRCUIT TRIM (VM)	10/13/2018		
8.)	2020 OUTAGES BY CAUSE			
	Animal-	0.5%		
	Construction-	0.0%		
	Lightning-	0.0%		
	Non-Company-	0.0%		
	Other/Unknown-	14.1%		
	Overload-	0.0%		
	Planned Work-	7.5%		
	Trees-	15.1%		
	Utility Equipment-	49.7%		
	Vehicle-	13.1%		
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	50.09		
10.)	2020 SAIDI	50.96		
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.94		
12.)	2020 SAIFI	0.74		

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 159 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	PLEASURE RIDGE	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4400 Atlas Power Rd Louisville	
3.)	CIRCUIT NAME AND NUMBER	PL1271	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Dixie Hwy, Pages Ln, & Maryman Rd - S of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	27.9	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,095	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	08/25/2018	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.8%	
	Construction-	0.0%	
	Lightning-	0.1%	
	Non-Company-	0.0%	
	Other/Unknown-	25.8%	
	Overload-	0.0%	
	Planned Work-	3.2%	
	Trees-	2.0%	
	Utility Equipment-	65.2%	
	Vehicle-	3.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	102.31	
10.)	2020 SAIDI	118.16	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.15	
12.)	2020 SAIFI	0.35	

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 160 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	PLEASURE RIDGE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 4400 Atlas Power Rd. - Louisville

3.) CIRCUIT NAME AND NUMBER PL1273

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Atlas Power Rd, Greenwood Rd & St. Pauls Church Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 82

7.) DATE OF LAST CIRCUIT TRIM (VM) 10/06/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 26.4%

Overload- 0.0%

Planned Work- 18.2%

Trees- 0.0%

Utility Equipment- 55.4%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 85.26

10.) 2020 SAIDI 230.07

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.57

12.) 2020 SAIFI 1.55

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 161 of 217

Wolfe

1.) SUBSTATION N	1.) SUBSTATION NAME AND NUMBER	

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Floyd - 4222 Hwy 111 - New Albany

3.) CIRCUIT NAME AND NUMBER PR1387

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) New Albany - No Road - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 0.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/09/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	51.14
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10.) 2020 SAIDI 255.68

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.20

12.) 2020 SAIFI 1.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 162 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	PADDYS RUN
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Floyd - 4222 Hwy 111 - New Albany

3.) CIRCUIT NAME AND NUMBER PR1390

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)

New Albany - Algonquin Pky & Gibson Ln - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 13

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/09/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 20.3%

Non-Company- 0.0%

Other/Unknown- 79.7%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 96.49

10.) 2020 SAIDI 369.36

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.06

12.) 2020 SAIFI 4.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 163 of 217

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1.)	SUBSTATION NAME AND NUMBER	PLAINVIEW
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 9900 Shelbyville Rd - Louisville
3.)	CIRCUIT NAME AND NUMBER	PV1250
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Shelbyville Rd, Dorsey Ln, & Ward Ave - NE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	34.2
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,863
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/08/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	12.4%
	Construction-	0.0%
	Lightning-	5.9%
	Non-Company-	0.0%
	Other/Unknown-	68.6%
	Overload-	0.0%
	Planned Work-	2.3%
	Trees-	0.0%
	Utility Equipment-	10.8%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	42.76
10.)	2020 SAIDI	58.39
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.29
12.)	2020 SAIFI	0.28

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

Continue to Monitor

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## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 164 of 217

Wolfe
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		***************************************
1.)	SUBSTATION NAME AND NUMBER	SEVENTH
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Louisville - 1231 S 7th St - Louisville
3.)	CIRCUIT NAME AND NUMBER	SE0001
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - 7th St, oak St, & 8th St - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	1.8
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	333
7.)	DATE OF LAST CIRCUIT TRIM (VM)	12/21/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	1.4%
	Overload-	0.0%
	Planned Work-	98.6%
	Trees-	0.0%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	15.97
10.)	2020 SAIDI	22.03
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.16
12.)	2020 SAIFI	0.09

 $13.) \quad \textbf{LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN} \\$ 

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 165 of 217

Wolfe

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1.)	SUBSTATION NAME AND NUMBER	SHIVELY
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3624 Elderwood Way - Louisville
3.)	CIRCUIT NAME AND NUMBER	SH1282
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Berry Blvd, Powell Ave, Wheeler Ave & Southgate Ave - E of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	10.4
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,039
7.)	DATE OF LAST CIRCUIT TRIM (VM)	08/05/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	10.3%
	Construction-	0.0%
	Lightning-	13.5%
	Non-Company-	0.0%
	Other/Unknown-	28.1%
	Overload-	0.0%
	Planned Work-	1.5%
	Trees-	32.0%
	Utility Equipment-	6.6%
	Vehicle-	8.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	59.27

10.) 2020 SAIDI 75.72

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.16

12.) **2020 SAIFI** 2.41

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

Tree Trim Scheduled for 2021

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 166 of 217

0.90

1.44

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SHIVELY
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3624 Elderwood Way - Louisville
3.)	CIRCUIT NAME AND NUMBER	SH1284
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Manslick Rd - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	9.1
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,311
7.)	DATE OF LAST CIRCUIT TRIM (VM)	08/12/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	7.6%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	64.3%
	Overload-	0.0%
	Planned Work-	6.9%
	Trees-	0.0%
	Utility Equipment-	21.1%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	66.32
10.)	2020 SAIDI	62.97

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

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0.45

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SHIVELY
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3624 Elderwood Way - Louisville
3.)	CIRCUIT NAME AND NUMBER	SH1285
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Nobel Pl, Dixie Hwy, & Appleton Ln - NW & SW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	8.2
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,117
7.)	DATE OF LAST CIRCUIT TRIM (VM)	08/12/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	2.4%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.1%
	Other/Unknown-	9.2%
	Overload-	0.0%
	Planned Work-	21.6%
	Trees-	18.9%
	Utility Equipment-	41.5%
	Vehicle-	6.3%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	55.31
10.)	2020 SAIDI	59.93
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.60

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

Continue to Monitor

12.) 2020 SAIFI

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 168 of 217

Wolfe

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1.)	SUBSTATION NAME AND NUMBER	SHIVELY	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3624 Elderwood Way - Louisville	
3.)	CIRCUIT NAME AND NUMBER	SH1456	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Dixie Hwy, Ralph Ave, & Fitzgerald Rd - N of Substation of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	3.5	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	22	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	08/05/2017	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.0%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	99.5%	
	Overload-	0.0%	
	Planned Work-	0.0%	
	Trees-	0.0%	
	Utility Equipment-	0.5%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	170.87	
10.)	2020 SAIDI	547.99	

 11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)
 1.04

 12.) 2020 SAIFI
 0.09

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 169 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SHIVELY
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 3624 Elderwood Way - Louisville
3.)	CIRCUIT NAME AND NUMBER	SH1458
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - 7th Street Rd, Arcade Ave, Taylor Blvd, & Berry Blvd - NE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	5.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	7
7.)	DATE OF LAST CIRCUIT TRIM (VM)	08/05/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	100.0%
	Trees-	0.0%

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

17.51

10.) **2020 SAIDI** 

1.00

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.49

12.) 2020 SAIFI

1.00

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

Utility Equipment- 0.0%

Vehicle- 0.0%

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 170 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SHIVELY
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 3624 Elderwood Way - Louisville

3.) CIRCUIT NAME AND NUMBER SH1459

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Manslick Rd, Bluegrass Ave, & Taylor Blvd - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 4.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 16

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/05/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 100.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (</b>	SAIDI)	95.83

10.) 2020 SAIDI 217.47

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.84

12.) 2020 SAIFI 0.94

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 171 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SKYLIGHT
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Oldham - 8617 W Hwy 42 - Skylight

3.) CIRCUIT NAME AND NUMBER SK1128

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Skylight - Hwy 42, Hwy 393, & Hwy 524 - NE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 152.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,437

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/06/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 0.1%

Construction- 0.0%

Lightning- 18.2%

Non-Company- 5.8%

Other/Unknown- 4.9%

Overload- 0.0%

Planned Work- 0.1%

Trees- 46.9%

Utility Equipment- 8.6%

Vehicle- 15.5%

9.)	CIRCUIT 5 YEAR AVERAGE (SA	AIDI)	456.77	

10.) **2020 SAIDI** 730.35

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.17

12.) 2020 SAIFI 3.38

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

Reliability Improvements Scheduled for 2021

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 172 of 217

Wolfe

			wone
1.)	SUBSTATION NAME AND NUMBER	SEMINOLE	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4161 Park Blvd Louisville	
3.)	CIRCUIT NAME AND NUMBER	SM1234	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Whitney Ave, Taylor Blvd, & Ashland Ave - W of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	13.7	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,256	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	09/16/2017	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	20.3%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	8.7%	
	Overload-	0.0%	
	Planned Work-	21.2%	
	Trees-	23.5%	
	Utility Equipment-	7.0%	
	Vehicle-	19.3%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	63.30	

10.) 2020 SAIDI 59.86

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.77

12.) 2020 SAIFI 0.99

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 173 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SEMINOLE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4161 Park Blvd Louisville
3.)	CIRCUIT NAME AND NUMBER	SM1235
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Fairmont Ave, 3rd St, 5th St, & 4th St - NW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	12.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,209
7.)	DATE OF LAST CIRCUIT TRIM (VM)	09/16/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	2.9%
	Construction-	10.3%
	Lightning-	0.0%
	Non-Company-	0.6%
	Other/Unknown-	1.6%
	Overload-	0.0%
	Planned Work-	80.1%
	Trees-	0.0%
	Utility Equipment-	1.7%
	Vehicle-	2.9%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	59.93
10.)	2020 SAIDI	71.03
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.76
12.)	2020 SAIFI	0.54

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 174 of 217

Wolfe

1.) SUBSTATION NAME AND NUMBER	SEMINOLE
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4161 Park Blvd Louisville
3.) CIRCUIT NAME AND NUMBER	SM1363
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Crittenden Dr - NE of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	1.4
6.) CUSTOMER COUNT FOR THIS CIRCUIT	12
7.) DATE OF LAST CIRCUIT TRIM (VM)	09/16/2017
8.) 2020 OUTAGES BY CAUSE	
Animal-	4.7%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	82.4%
Overload-	0.0%

Trees- 0.0%

Utility Equipment- 13.0%

Planned Work- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	117.83
10.) <b>2020 SAIDI</b>	264.02
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.15
12.) <b>2020 SAIFI</b>	3.17

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 175 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SEMINOLE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 4161 Park Blvd. - Louisville

3.) CIRCUIT NAME AND NUMBER SM1364

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Park Blvd, Farmington Ave, & Floyd St - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.2

6.) CUSTOMER COUNT FOR THIS CIRCUIT 48

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/16/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 29.3%

Overload- 0.0%

Planned Work- 67.0%

Trees- 0.0%

Utility Equipment- 3.7%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 36.93

10.) 2020 SAIDI 119.68

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.44

12.) 2020 SAIFI 0.85

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 176 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SEMINOLE
-----	----------------------------	----------

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 4161 Park Blvd. - Louisville

3.) CIRCUIT NAME AND NUMBER SM1366

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Crittenden Dr, Woodlawn Ave, Phillips Ln, & Preston Hwy - S & E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 7.9

6.) CUSTOMER COUNT FOR THIS CIRCUIT 35

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/16/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 25.5%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 74.5%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAII</b>	DI) 115.06

10.) 2020 SAIDI 161.25

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.93

12.) 2020 SAIFI 2.09

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 177 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SHAWNEE
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - Rear of 3908 W Broadway - Louisville
3.)	CIRCUIT NAME AND NUMBER	SN0002
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Broadway, 37th St, & Lindell Ave - E of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.5
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	519
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/29/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	28.2%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	65.4%
	Trees-	6.4%
	Utility Equipment-	0.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	23.75
10.)	2020 SAIDI	25.03
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.75
12.)	2020 SAIFI	0.20

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 178 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SHAWNEE
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - Rear of 3908 W Broadway - Louisville

3.) CIRCUIT NAME AND NUMBER SN0004

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Broadway, 40th, 41st, 42nd, 43rd, & 44th St - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 2.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 618

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/29/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 73.8%

Other/Unknown- 3.8%

Overload- 0.0%

Planned Work- 6.6%

Trees- 2.3%

Utility Equipment- 0.1%

Vehicle- 13.5%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 61.60

10.) 2020 SAIDI 194.06

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.55

12.) 2020 SAIFI 1.51

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 179 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SOUTHERN	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1475 S 3rd Street - Louisville	
3.)	CIRCUIT NAME AND NUMBER	SO0410	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - 4th St & Hill St - W of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	1.6	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	694	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/01/2020	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	4.5%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	11.6%	
	Overload-	0.0%	
	Planned Work-	7.6%	
	Trees-	0.0%	
	Utility Equipment-	2.1%	
	Vehicle-	74.2%	

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 46.22

10.) **2020 SAIDI** 163.63

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.54

12.) **2020 SAIFI** 2.03

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 180 of 217

0.34

0.58

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SOUTHERN
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1475 S 3rd Street - Louisville
3.)	CIRCUIT NAME AND NUMBER	SO0422
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - 2nd St & 3rd St - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	1.5
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	776
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/01/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal- 0.0%	
	Construction- 0.0%	
	Lightning- 0.0%	
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload- 0.0%	
	Planned Work- 31.5%	
	Trees-	0.0%
	Utility Equipment- 66.3%	
	Vehicle- 2.2%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	32.73
10.)	2020 SAIDI	36.43

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

### Case Nos. 2020-00349 and 2020-00350 Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 181 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	SOUTHERN
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1475 S 3rd Street - Louisville
3.)	CIRCUIT NAME AND NUMBER	SO0451
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - 3rd St & Lee St - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.5
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	538
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/01/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	58.6%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	15.6%
	Utility Equipment-	25.8%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	72.76
10.)	2020 SAIDI	79.58
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.56
12.)	2020 SAIFI	0.27

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 182 of 217

Wolfe

		1, 0220
1.)	SUBSTATION NAME AND NUMBER	SOUTHERN
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1475 S 3rd Street - Louisville
3.)	CIRCUIT NAME AND NUMBER	SO0453
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - 3rd St, Oak St, & Brook St - N of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	2.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	626
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/01/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	55.2%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	20.2%
	Utility Equipment-	24.6%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	26.23
10.)	2020 SAIDI	53.37

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	26.23

10.) 2020 SAIDI 53.37

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.16

12.) 2020 SAIFI 0.35

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 183 of 217

Wolfe

		11 322
1.)	SUBSTATION NAME AND NUMBER	SOUTH PARK
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1412 Fairdale Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	SP1114
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Farmers Ln, South Park Rd, & Minor Ln - NE & S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	9.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	526
7.)	DATE OF LAST CIRCUIT TRIM (VM)	10/12/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.5%
	Construction-	0.0%
	Lightning-	1.4%
	Non-Company-	0.0%
	Other/Unknown-	0.1%
	Overload-	0.0%
	Planned Work-	0.0%
	Trees-	0.7%
	Utility Equipment-	0.0%
	Vehicle-	97.3%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	248.84
10.)	2020 SAIDI	683.02

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	248.84	
10.)	2020 SAIDI	683.02	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.30	
12.)	2020 SAIFI	0.97	

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 184 of 217

113.41

1.15

1.38

Wolfe

1.)	SUBSTATION NAME AND NUMBER	STEWART
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4701 Stewart Ln Louisville
3.)	CIRCUIT NAME AND NUMBER	SW1184
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Romania Dr, Meyers Ln, & Blanton Ln - SW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	16.1
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,269
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/10/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	2.0%
	Construction-	0.0%
	Lightning-	0.1%
	Non-Company-	0.0%
	Other/Unknown-	1.0%
	Overload-	0.0%
	Planned Work-	23.6%
	Trees-	7.7%
	Utility Equipment-	17.2%
	Vehicle-	48.4%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	125.47

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

Continue to Monitor

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

10.) 2020 SAIDI

12.) 2020 SAIFI

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 185 of 217

Wolfe

1.	SUBSTATION NAME AND NUMBER	STEWART

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 4701 Stewart Ln. - Louisville

3.) CIRCUIT NAME AND NUMBER SW1186

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Gagel Ave, Hazelwood Ave, Bluegrass Ave, & Lonsdale Ave - E of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 14.0

6.) CUSTOMER COUNT FOR THIS CIRCUIT 2,025

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/16/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 2.7%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 4.7%

Overload- 0.0%

Planned Work- 6.0%

Trees- 81.7%

Utility Equipment- 0.8%

Vehicle- 4.1%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	119.30
ر. ر	CINCULT STEAM AVENAGE (SAID)	11 11.

10.) 2020 SAIDI 146.07

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.88

12.) 2020 SAIFI 0.92

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

Reliability Improvements Completed in 2020

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 186 of 217

0.61

Wolfe

1.)	SUBSTATION NAME AND NUMBER	STEWART
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4701 Stewart Ln Louisville
3.)	CIRCUIT NAME AND NUMBER	SW1187
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - San Jose Ave, Dixie Hwy, Sadie Ln, & Estate Dr - NE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	14.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,526
7.)	DATE OF LAST CIRCUIT TRIM (VM)	02/10/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	3.3%
	Construction-	8.1%
	Lightning-	1.1%
	Non-Company-	0.0%
	Other/Unknown-	49.9%
	Overload-	0.0%
	Planned Work-	11.0%
	Trees-	19.6%
	Utility Equipment-	7.0%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	56.18
10.)	2020 SAIDI	65.51
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.93

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

Continue to Monitor

12.) 2020 SAIFI

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 187 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	STEWART
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 4701 Stewart Ln. - Louisville

3.) CIRCUIT NAME AND NUMBER SW1188

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Rockford Ln, Imperial Ter, & Dover Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 14.1

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,871

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/10/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 28.5%

Construction- 0.5%

Lightning- 0.0%

Non-Company- 0.4%

Other/Unknown- 10.8%

Overload- 0.0%

Planned Work- 9.6%

Trees- 35.0%

Utility Equipment- 1.9%

Vehicle- 13.4%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI</b>	74.40
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10.) 2020 SAIDI 94.19

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.65

12.) **2020 SAIFI** 1.10

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 188 of 217

Wolfe

٠.,	3055 TATION NAME AND NOMBER	JIEWAKI
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4701 Stewart Ln Louisville

3.) CIRCUIT NAME AND NUMBER SW1191

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Gagel Ave, Manslick Rd, & Parkwood Rd - SE of Substation

CTE\A/A DT

5.) TOTAL CIRCUIT LENGTH (MILES) 17.5

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,352

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/03/2018

8.) 2020 OUTAGES BY CAUSE

1 ) SUBSTATION NAME AND NUMBER

Animal- 0.4%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.1%

Other/Unknown- 95.0%

Overload- 0.0%

Planned Work- 1.2%

Trees- 0.6%

Utility Equipment- 2.7%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 51	1./3	
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10.) 2020 SAIDI 146.71

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.31

12.) 2020 SAIFI 0.58

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 189 of 217

Wolfe

1.	SUBSTATION NAME AND NUMBER	STEWART

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 4701 Stewart Ln. - Louisville

3.) CIRCUIT NAME AND NUMBER SW1451

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Gagel Ave, Hazelwood Ave, Manslick Rd, & Brick Kiln Ln - E & SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 10.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 38

7.) DATE OF LAST CIRCUIT TRIM (VM) 12/02/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 6.7%

Trees- 64.7%

Utility Equipment- 15.6%

Vehicle- 13.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	193.56
٦.١	CINCUIT 5 TEAN AVENAGE (SAIDI)	193

10.) 2020 SAIDI 801.90

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.51

12.) 2020 SAIFI 4.16

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

Tree Trim Scheduled for 2021

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 190 of 217

Wolfe

1. JUBSTATION NAIVIE AND NUIVIDER SIVIYKIN	1.	AND NUMBER	.) SUBSTATION NAME AND NUMBER	SMYRNA
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 7000 Manslick Rd. - Louisville

3.) CIRCUIT NAME AND NUMBER SY1250

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Vaughn Mill Rd, Outer Loop & Fegenbush Ln - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 28.3

6.) CUSTOMER COUNT FOR THIS CIRCUIT 2,035

7.) DATE OF LAST CIRCUIT TRIM (VM) 07/06/2018

8.) 2020 OUTAGES BY CAUSE

Animal- 3.6%

Construction- 1.2%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 24.8%

Overload- 0.0%

Planned Work- 15.7%

Trees- 4.9%

Utility Equipment- 49.7%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 46.04

10.) **2020 SAIDI** 26.80

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.48

12.) 2020 SAIFI 0.62

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 191 of 217

0.47

1.37

Wolfe

			WOIIC
1.)	SUBSTATION NAME AND NUMBER SMYRNA		
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 7000 Manslick Rd Louisville	
3.)	CIRCUIT NAME AND NUMBER SY1255		
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Manslick Rd, Beulah Church Rd, & Fegenbush Ln - NE of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES) 32.7		
6.)			
7.)	DATE OF LAST CIRCUIT TRIM (VM)	05/05/2018	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	7.9%	
	Construction-	0.0%	
	Lightning-	3.9%	
	Non-Company-	0.0%	
	Other/Unknown-	4.0%	
	Overload- 0.7%		
	Planned Work- 3.1%		
	Trees- 0.0%		
	Utility Equipment-	80.4%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	31.33	
10.)	2020 SAIDI	43.61	

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 192 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	TAYLOR
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4488 Brownsboro Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	TA1105
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Brownsboro Rd & Springcrest Dr - NE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	25.0
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,477
7.)	DATE OF LAST CIRCUIT TRIM (VM)	11/02/2019
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.7%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	4.5%
	Overload-	0.0%
	Planned Work-	2.8%
	Trees-	2.5%
	Utility Equipment-	13.3%
	Vehicle-	76.1%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	134.18
10.)	2020 SAIDI	139.08
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.17
12.)	2020 SAIFI	1.03

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

Reliability Improvements Completed in 2020

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 193 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	TAYLOR
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4488 Brownsboro Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	TA1106
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Blankenbaker Ln, Riviera Dr, & Woodside Rd - NW of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	40.9
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,210
7.)	DATE OF LAST CIRCUIT TRIM (VM)	04/18/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	8.5%
	Construction-	0.0%
	Lightning-	1.2%
	Non-Company-	0.0%
	Other/Unknown-	47.3%
	Overload-	0.0%
	Planned Work-	0.9%
	Trees-	28.2%
	Utility Equipment-	13.9%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	151.21
10 ١	2020 CAIDI	70.02

10.) 2020 SAIDI	70.02
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.47

1.47

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

Trees Trimmed in 2020

12.) 2020 SAIFI

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 194 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	TAYLOR
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4488 Brownsboro Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	TA1130
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Hubbards Ln, Shelbyville Rd, & Browns Ln - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	14.1
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,742
7.)	DATE OF LAST CIRCUIT TRIM (VM)	11/03/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.3%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	4.2%
	Overload-	0.0%
	Planned Work-	4.4%
	Trees-	80.8%
	Utility Equipment-	10.4%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	131.85
10.)	2020 SAIDI	152.03
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.63
12.)	2020 SAIFI	1.54

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

Reliability Improvements Completed in 2020

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 195 of 217

188.51

Wolfe

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1.)	SUBSTATION NAME AND NUMBER	TAYLOR
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 4488 Brownsboro Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	TA1138
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Brownsboro Rd, Chenoweth Ln, Canoe Ln, & Wampum Rd - W of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	11.9
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	571
7.)	DATE OF LAST CIRCUIT TRIM (VM)	03/06/2018
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.5%
	Construction-	0.0%
	Lightning-	0.1%
	Non-Company-	0.0%
	Other/Unknown-	13.0%
	Overload-	0.0%
	Planned Work-	0.5%
	Trees-	32.6%
	Utility Equipment-	53.4%
	Vehicle-	0.0%

9.	CIRCUIT 5 YEAR AVERAGE (	(SAIDI)

10.) **2020 SAIDI** 265.33

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.18

12.) **2020 SAIFI** 1.77

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 196 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	TAYLOR
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 4488 Brownsboro Rd. - Louisville

3.) CIRCUIT NAME AND NUMBER TA1172

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Chenoweth Ln, Cherrywood Rd, & Washington Sq - SW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 10.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,117

7.) DATE OF LAST CIRCUIT TRIM (VM) 01/26/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 2.9%

Construction- 38.6%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 15.6%

Overload- 0.0%

Planned Work- 0.7%

Trees- 20.4%

Utility Equipment- 21.7%

Vehicle- 0.0%

3.) CIRCUIT 3 TEAR AVERAGE (SAIDI)	9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	118.25
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10.) 2020 SAIDI 144.42

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.84

12.) 2020 SAIFI 1.85

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 197 of 217

Wolfe

1.) SUBS	TATION NAME AND NUMBER	TAYLOR
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 4488 Brownsboro Rd. - Louisville

3.) CIRCUIT NAME AND NUMBER TA1173

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Hubbards Ln, Rudy Ln, Massie Ave, & Westport Rd - S of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 25.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,970

7.) DATE OF LAST CIRCUIT TRIM (VM) 03/16/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.3%

Construction- 1.1%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 5.6%

Overload- 0.0%

Planned Work- 0.5%

Trees- 66.5%

Utility Equipment- 26.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SA</b>	IDI)	160.81

10.) 2020 SAIDI 323.12

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.68

12.) **2020 SAIFI** 3.46

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 198 of 217

Wolfe

1.) SUBSTATION NAME AND NUMBER	TERRY
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 8408 Terry Ln Louisville
3.) CIRCUIT NAME AND NUMBER	TE1242
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Pages Ln & Robbins Rd - E of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	8.0
6.) CUSTOMER COUNT FOR THIS CIRCUIT	856
7.) DATE OF LAST CIRCUIT TRIM (VM)	09/12/2020
8.) 2020 OUTAGES BY CAUSE	
Animal	- 8.5%
Construction	- 0.0%
Lightning	- 0.0%
Non-Company	- 0.0%
Other/Unknown	- 8.2%
Overload	- 0.0%
Planned Work	- 2.2%

Trees- 64.4%

Utility Equipment- 16.7%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI)	48.73
10.) <b>2020 SAIDI</b>	64.15
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.61
12.) <b>2020 SAIFI</b>	0.86

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

Trees Trimmed in 2020

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 199 of 217

Wolfe

1.	SUBSTATION NAME AND NUMBER	TERRY
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 8408 Terry Ln. - Louisville

3.) CIRCUIT NAME AND NUMBER TE1243

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Terry Rd, Greenwood Rd, & Westbrook Rd - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 19.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1,775

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/05/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 3.1%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.7%

Overload- 0.0%

Planned Work- 0.9%

Trees- 0.6%

Utility Equipment- 13.3%

Vehicle- 81.4%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 7	79.60
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10.) **2020 SAIDI** 108.82

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.78

12.) 2020 SAIFI 1.30

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 200 of 217

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1.)	SUBSTATION NAME AND NUMBER	TERRY
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 8408 Terry Ln Louisville
3.)	CIRCUIT NAME AND NUMBER	TE1244
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Terry Rd, Johnsontown Rd, & Dixie Hwy - S of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	19.5
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,852
7.)	DATE OF LAST CIRCUIT TRIM (VM)	09/19/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.7%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.7%
	Overload-	0.0%
	Planned Work-	20.8%
	Trees-	0.3%
	Utility Equipment-	77.5%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	21.55
10.)	2020 SAIDI	23.87
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.38
12.)	2020 SAIFI	0.20

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 201 of 217

Wolfe

SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 8408 Terry Ln. - Louisville
 CIRCUIT NAME AND NUMBER TE1245
 CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - Pages Ln, Poinsettia Dr, Greenwood Rd, & Feyhurst Dr - NE of Substation

**TERRY** 

5.) TOTAL CIRCUIT LENGTH (MILES) 23.7

6.) CUSTOMER COUNT FOR THIS CIRCUIT 2,344

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/12/2020

8.) 2020 OUTAGES BY CAUSE

1.) SUBSTATION NAME AND NUMBER

Animal- 11.9%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 0.0%

Overload- 0.0%

Planned Work- 25.9%

Trees- 1.3%

Utility Equipment- 33.6%

Vehicle- 27.3%

9.) <b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	25.61
10.) <b>2020 SAIDI</b>	40.75
11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.35
12.) <b>2020 SAIFI</b>	0.81

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 202 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	TERRY
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 8408 Terry Ln. - Louisville

3.) CIRCUIT NAME AND NUMBER TE1247

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Cane Run Rd - W of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 7.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 363

7.) DATE OF LAST CIRCUIT TRIM (VM) 09/19/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 1.7%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 3.3%

Vehicle- 94.9%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	25.93
٠.,		23.33

10.) 2020 SAIDI 32.70

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.64

12.) 2020 SAIFI 1.04

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 203 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	TERRY	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 8408 Terry Ln Louisville	
3.)	CIRCUIT NAME AND NUMBER	TE1248	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Greenbelt Hwy, Greenwood Rd, & Cane Run Rd - NW of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	10.7	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	606	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	09/19/2020	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	2.7%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	17.4%	
	Overload-	0.0%	
	Planned Work-	0.0%	
	Trees-	0.0%	
	Utility Equipment-	0.3%	
	Vehicle-	79.6%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	98.75	
10.)	2020 SAIDI	182.28	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.66	
12.)	2020 SAIFI	0.52	

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 204 of 217

Wolfe

1 )	SUBSTATION NAME AND NUMBER	Tin Ton
1.1	3063 I A I ION NAIVIE AIND NOIVIBER	110 100

2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Meade - US 60 - Tip Top

3.) CIRCUIT NAME AND NUMBER TT3314

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Tip Top - Chaffee Ave, Gold Vault Rd, & 5th Ave - SE of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 6.4

6.) CUSTOMER COUNT FOR THIS CIRCUIT 1

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/15/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 100.0%

Overload- 0.0%

Planned Work- 0.0%

Trees- 0.0%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 1649.01

10.) 2020 SAIDI 8232.82

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40

12.) 2020 SAIFI 1.00

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 205 of 217

0.21

0.35

Wolfe

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1.)	SUBSTATION NAME AND NUMBER	VERMONT
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - Rear 529 Southwestern Pkwy - Louisville
3.)	CIRCUIT NAME AND NUMBER	VE0002
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - River Park Dr, 44th, 43rd, & 42nd St - SE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	1.2
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	305
7.)	DATE OF LAST CIRCUIT TRIM (VM)	03/21/2020
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.0%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	0.0%
	Overload-	0.0%
	Planned Work-	28.7%
	Trees-	20.8%
	Utility Equipment-	0.0%
	Vehicle-	50.6%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	22.83
10.)	2020 SAIDI	60.58

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

Continue to Monitor

12.) 2020 SAIFI

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI)

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 206 of 217

Wolfe

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1.) SUBSTATION NAME AND NUMBER	WESTERN	
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 2807 W Broadway - Louisville	
3.) CIRCUIT NAME AND NUMBER	WE0001	
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - 28th St, Chestnut St, 26th St, & Muhammad Ali Blvd - NE of Substation	
5.) TOTAL CIRCUIT LENGTH (MILES)	5.1	
6.) CUSTOMER COUNT FOR THIS CIRCUIT	811	
7.) DATE OF LAST CIRCUIT TRIM (VM)	02/23/2019	
8.) 2020 OUTAGES BY CAUSE		
Animal	- 0.0%	
Construction	- 6.5%	
Lightning	- 0.0%	
Non-Company	- 47.9%	
Other/Unknown	- 5.3%	
Overload	- 0.0%	
Planned Work	- 1.8%	
Trees	- 29.5%	
Utility Equipment	- 1.1%	
Vehicle	- 8.0%	
O \ CIDCUIT E VEAD AVED ACE (CAIDI)	10.20	

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 19.29

10.) **2020 SAIDI** 40.75

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.17

12.) **2020 SAIFI** 0.20

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 207 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	WESTERN
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 2807 W Broadway - Louisville

3.) CIRCUIT NAME AND NUMBER WE0006

4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN) Louisville - 28th St, Chestnut St, 30th St, & 31st St - NW of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 1.8

6.) CUSTOMER COUNT FOR THIS CIRCUIT 223

7.) DATE OF LAST CIRCUIT TRIM (VM) 02/23/2019

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 97.2%

Overload- 0.0%

Planned Work- 0.4%

Trees- 2.3%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAIDI)</b>	105.09

10.) 2020 SAIDI 435.93

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.34

12.) 2020 SAIFI 0.38

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 208 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	WHAS
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 1310 Flat Road Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	WH1116
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Flat Rock Rd, Long Run Rd, & Aiken Rd - NW & SE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	31.3
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,153
7.)	DATE OF LAST CIRCUIT TRIM (VM)	12/19/2020

8.) 2020 OUTAGES BY CAUSE

Animal- 0.5%

Construction- 0.0%

Lightning- 0.0%

Non-Company- 0.0%

Other/Unknown- 27.1%

Overload- 0.0%

Planned Work- 15.6%

Trees- 0.6%

Utility Equipment- 56.3%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	61.25	
10.)	2020 SAIDI	176.81	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.53	
12.)	2020 SAIFI	1.43	

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 209 of 217

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Wolfe

1.)	SUBSTATION NAME AND NUMBER	WORTHINGTON	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	lefferson - 10300 Ballardsville Rd Louisville	
3.)	CIRCUIT NAME AND NUMBER	W01177	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Ballardsville Rd, Murphy Ln, & Tazwell Dr - E of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	23.2	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	2,088	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/01/2017	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.1%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	0.0%	
	Overload-	0.8%	
	Planned Work-	0.7%	
	Trees-	16.9%	
	Utility Equipment-	59.5%	
	Vehicle-	22.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	69.88	
10.)	2020 SAIDI	116.87	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.67	

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

Continue to Monitor

12.) 2020 SAIFI

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 210 of 217

Wolfe

1.) SUBSTATION NAME AND NUMBER	WORTHINGTON
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 10300 Ballardsville Rd Louisville
3.) CIRCUIT NAME AND NUMBER	WO1179
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Chamberlain Ln - NW of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	26.1
6.) CUSTOMER COUNT FOR THIS CIRCUIT	1,103
7.) DATE OF LAST CIRCUIT TRIM (VM)	07/01/2017
8.) 2020 OUTAGES BY CAUSE	
Animal-	0.0%
Construction-	0.0%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	70.1%

Planned Work- 0.2%

Overload- 0.0%

Trees- 29.7%

Utility Equipment- 0.0%

Vehicle- 0.0%

9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	42.12	
10.)	2020 SAIDI	161.85	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.30	
12.)	2020 SAIFI	1.02	

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

Tree Trim Scheduled for 2021

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 211 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	WORTHINGTON
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 10300 Ballardsville Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	WO1182
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Brownsboro Rd, Park Plaza Ave, & Ten Broeck Way - W of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	18.6
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,011
7.)	DATE OF LAST CIRCUIT TRIM (VM)	08/18/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.6%
	Construction-	0.0%
	Lightning-	0.0%
	Non-Company-	0.0%
	Other/Unknown-	76.0%
	Overload-	0.0%
	Planned Work-	0.1%
	Trees-	15.1%
	Utility Equipment-	8.2%
	Vehicle-	0.0%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	49.97
10.)	2020 SAIDI	54.72
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	0.61
12.)	2020 SAIFI	0.30

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

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 212 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	WORTHINGTON
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 10300 Ballardsville Rd Louisville
3.)	CIRCUIT NAME AND NUMBER	WO1183
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Ballardsville Rd, Haunz Ln, & Hitt Ln - NE of Substation
5.)	TOTAL CIRCUIT LENGTH (MILES)	36.7
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,671
7.)	DATE OF LAST CIRCUIT TRIM (VM)	05/31/2017
8.)	2020 OUTAGES BY CAUSE	
	Animal-	0.5%
	Construction-	0.0%
	Lightning-	15.3%
	Non-Company-	1.8%
	Other/Unknown-	12.0%
	Overload-	0.2%
	Planned Work-	0.0%
	Trees-	44.6%
	Utility Equipment-	6.3%
	Vehicle-	19.3%
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	195.11
10.)	2020 SAIDI	218.65
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.64
12.)	2020 SAIFI	1.15

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

Tree Trim Scheduled for 2021

# Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 213 of 217

Wolfe

1.)	SUBSTATION NAME AND NUMBER	WORTHINGTON
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2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Jefferson - 10300 Ballardsville Rd. - Louisville

3.) CIRCUIT NAME AND NUMBER WO1184

4.) **CIRCUIT LOCATION (COUNTY-ROAD-TOWN)** Louisville - Brownsboro Rd & Worthington Ln - N of Substation

5.) TOTAL CIRCUIT LENGTH (MILES) 33.6

6.) CUSTOMER COUNT FOR THIS CIRCUIT 2,557

7.) DATE OF LAST CIRCUIT TRIM (VM) 08/18/2017

8.) 2020 OUTAGES BY CAUSE

Animal- 0.0%

Construction- 0.0%

Lightning- 38.0%

Non-Company- 1.3%

Other/Unknown- 12.7%

Overload- 0.0%

Planned Work- 24.7%

Trees- 0.0%

Utility Equipment- 23.3%

Vehicle- 0.0%

9.)	<b>CIRCUIT 5 YEAR AVERAGE (SAID</b>	))) 16. <i>4</i>	<del>1</del> 7
5.1	CIRCUIT 3 TEAR AVERAGE (SAIL	رار	۰

10.) 2020 SAIDI 61.35

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.14

12.) **2020 SAIFI** 0.60

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

Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 214 of 217

2.43

Wolfe

1.)	SUBSTATION NAME AND NUMBER	WATERSIDE	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	efferson - 221 North Third St Louisville	
3.)	CIRCUIT NAME AND NUMBER	WS1322	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Main St, 13th St, Market St, 10th St, & Portland Ave - W of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	5.5	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	52	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	04/07/2016	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	3.6%	
	Construction-	3.0%	
	Lightning-	0.0%	
	Non-Company-	40.9%	
	Other/Unknown-	52.5%	
	Overload-	0.0%	
	Planned Work-	0.0%	
	Trees-	0.0%	
	Utility Equipment-	0.0%	
	Vehicle-	0.0%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	53.21	
10.)	2020 SAIDI	97.95	
11.)	CIRCUIT 5 YEAR AVERAGE (SAIFI)	1.03	

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

Continue to Monitor

12.) 2020 SAIFI

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Page 215 of 217

76.12

Wolfe

1.) SUBSTATION NAME AND NUMBER	WATTERSON
2.) SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 5239 Bardstown Rd Louisville
3.) CIRCUIT NAME AND NUMBER	WT1154
4.) CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Walt Lee Rd, Fairground Rd, Billtown Rd, & Easum Rd - E of Substation
5.) TOTAL CIRCUIT LENGTH (MILES)	20.0
6.) CUSTOMER COUNT FOR THIS CIRCUIT	2,830
7.) DATE OF LAST CIRCUIT TRIM (VM)	08/05/2017
8.) 2020 OUTAGES BY CAUSE	
Animal-	0.6%
Construction-	0.2%
Lightning-	0.0%
Non-Company-	0.0%
Other/Unknown-	30.5%
Overload-	0.0%
Planned Work-	6.0%
Trees-	32.9%

9.) CIRCUIT 5 YEAR AVERAGE (SAIDI) 43.83

Vehicle- 15.2%

Utility Equipment- 14.7%

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.57

12.) 2020 SAIFI 1.32

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

Tree Trim Scheduled for 2021

10.) 2020 SAIDI

## Attachment to Response to MA-KFTC-KSES-MHC-3 Question No. 10 Page 216 of 217

Wolfe

			VV OIIC
1.)	SUBSTATION NAME AND NUMBER	WATTERSON	
2.)	SUBSTATION LOCATION (COUNTY-ROAD-TOWN)	Jefferson - 5239 Bardstown Rd Louisville	
3.)	CIRCUIT NAME AND NUMBER	WT1209	
4.)	CIRCUIT LOCATION (COUNTY-ROAD-TOWN)	Louisville - Laverne Dr, Watterson Trl, & Dell Rd - NE of Substation	
5.)	TOTAL CIRCUIT LENGTH (MILES)	9.8	
6.)	CUSTOMER COUNT FOR THIS CIRCUIT	1,517	
7.)	DATE OF LAST CIRCUIT TRIM (VM)	07/29/2017	
8.)	2020 OUTAGES BY CAUSE		
	Animal-	0.0%	
	Construction-	0.0%	
	Lightning-	0.0%	
	Non-Company-	0.0%	
	Other/Unknown-	9.7%	
	Overload-	0.0%	
	Planned Work-	18.9%	
	Trees-	14.2%	
	Utility Equipment-	54.9%	
	Vehicle-	2.3%	
9.)	CIRCUIT 5 YEAR AVERAGE (SAIDI)	30.35	

9.)	CIRCUIT 5 YEAR AVERAGE (SAID	1) 30.35
٠.,	CINCOLL 2 LEAN AVENAGE (SAID	JU.J

10.) 2020 SAIDI 28.84

11.) CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.24

12.) 2020 SAIFI 0.28

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

Wolfe

#### KENTUCKY PUBLIC SERVICE COMMISSION

#### **ELECTRIC DISTRIBUTION UTILITY ANNUAL RELIABILITY REPORT**

#### **SECTION 6: VEGETATION MANAGEMENT PLAN REVIEW**

The Companies' Vegetation Management Plan was submitted December 19, 2007. The Distribution Vegetation Management Program encompasses right of way maintenance for Louisville Gas and Electric Company and Kentucky Utilities Company (referred to as the "Companies"). The program is centralized and managed by a Forestry Manager and eight company Utility Arborists. All are certified arborists by the International Society of Arboriculture.

The Companies' plan is to maintain a proactive trim cycle while balancing the reactive needs of worst performing circuits. The Companies' goal is to maintain an average trim cycle of five years or less. The effectiveness of the plan is evaluated by the cycle and system performance as measured by system SAIDI, SAIFI, and CAIDI.

#### Effectiveness of the program

KU/LG&E Tree Cycle – 4.90 years

LGE Tree SAIDI – 21.13 minutes

LGE Tree SAIFI - 0.115

LGE Tree CAIDI - 183.9 minutes

The hazard tree program, mid cycle, herbicide, and worst performing circuits were completed as planned.

#### Adjustments made to the tree plan in 2020 included

No changes made to plan.

#### Changes to be implemented in 2021

No changes made to plan. Continue targeted hazard tree and mid-cycle trim work.

#### **SECTION 7: UTILITY COMMENTS**

SAIDI and SAIFI improved in 2020 compared to the previous 5 year average including and excluding major events. 215 Circuits were above their previous 5 year average SAIDI and/or SAIFI in 2020.

### KENTUCKY UTILITIES COMPANY AND LOUISVILLE GAS AND ELECTRIC COMPANY

Joint Intervenors' Second Supplemental Requests

Mountain Association, Kentuckians for the Commonwealth, Kentucky Solar Energy
Society and Metropolitan Housing Coalition's Request for Information
Dated July 22, 2021

Case No. 2020-00349 / Case No. 2020-00350

#### Question No. 11

Responding Witness: David S. Sinclair

#### Q-11.

- 1. Identify the Utility Discount Rate the Companies propose to use in the avoided cost calculations. Provide all data, analysis, and references used to determine that this is a reasonable and appropriate discount rate.
- 2. Identify the Environmental Discount Rate the Companies propose to use in their Avoided Carbon Cost and Avoided Environmental Compliance Cost calculations. Provide all data, analysis, and references used to determine that this is a reasonable and appropriate environmental discount rate.
- 3. Identify the Companies' reserve margin target and current reserve margin.

#### A-11.

- 1. The Companies propose to use the same discount rate for avoided cost calculations as they use for discounting other revenue requirements. The discount rate used in Supplemental Exhibits DSS-1 and DSS-2 was 6.75%.
- 2. Avoided carbon and environmental costs are reflected in the Companies' avoided energy and capacity costs. See the response to part 1.
- 3. The Companies' target summer reserve margin range is 17 percent to 25 percent. The 2021 planning summer reserve margin is 24.2%, which reflects the retirement of Paddy's Run Unit 11 on March 31, 2021.

## KENTUCKY UTILITIES COMPANY AND LOUISVILLE GAS AND ELECTRIC COMPANY

Joint Intervenors' Second Supplemental Requests

Mountain Association, Kentuckians for the Commonwealth, Kentucky Solar Energy
Society and Metropolitan Housing Coalition's Request for Information
Dated July 22, 2021

Case No. 2020-00349 / Case No. 2020-00350

Question No. 12

Responding Witness: David S. Sinclair

Q-12. On p. 23 of his Supplemental Testimony (p.65 pdf), Mr. Seelye states:

"In no event should the energy cost and capacity value provided to customergenerators exceed the cost that the Companies would incur from purchasing power from a solar purchased power agreement."

- 1. Is it the Companies' practice to negotiate power purchase agreements to secure the lowest price? Is the price paid for a PPA representative of the value of the resource to the Company or is it based on the lowest cost the Company is able to secure in the market at the time?
- 2. Is it the Companies' position that the price paid in a solar PPA represents the full value of the resource to the Company?
- 3. Please provide any documentation or analysis conducted to support the proposition that in negotiating the prices for a solar PPA the Companies seek to assure that the vendor is compensated for the full value of the purchased power to the utility and its customers.

#### A-12.

- 1. Because the Companies have an obligation to provide safe and reliable service at the lowest reasonable cost, it is their practice to seek the lowest PPA prices they can negotiate with reliable, reputable vendors.
- 2. No. If a PPA is not lower cost than the costs the Companies would otherwise incur to provide comparable service to their customers, then the Companies do not enter into the PPA. In other words, the Companies do not seek to determine their potentially avoidable costs and then seek to pay that full amount under a PPA; rather, they seek to negotiate a lower price for customers' benefit.

3. No such documentation exists. In negotiating PPAs, the Companies do not seek to pay "full value," but rather the lowest price consistent with providing safe and reliable service to their customers.