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PUBLIC SERVICE
COMMISSION

April 13, 2022

Ms. Linca C. Bridwell, P.E.
Executive Director
Kentucky Public Service Commission
P. O. Box 615
Frankfort, KY 40602-0615

**Re: ADMINISTRATIVE CASE NO. 2006-00494
AN INVESTIGATION OF THE RELIABILITY MEASURES OF KENTUCKY'S
JURISDICTIONAL ELECTRIC DISTRIBUTION UTILITIES AND CERTAIN
RELIABILITY MAINTENANCE PRACTICES**

Dear Ms. Bridwell:

Enclosed is Inter-County Energy Cooperative's Annual Report of Reliability pursuant to Public Service Commission Case No. 2006-00494 dated October 26, 2007.

If you have further questions or comments, please direct those to David Phelps, Vice President-Operations, 859-936-7818, davidp@intercountyenergy.net or to Jessie Turpin, System Engineer, 859-936-7857, jessie@intercountyenergy.net.

Sincerely,


Jerry W. Carter
President/CEO

This institution is an equal opportunity provider and employer.

Electric Distribution Utility Annual Reliability Report

SECTION 1: CONTACT INFORMATION

UTILITY NAME	1.1	<u>Inter-County Energy</u>
REPORT PREPARED BY	1.2	<u>Jessie Turpin</u>
E-MAIL ADDRESS OF PREPARER	1.3	<u>jessie@intercountyenergy.net</u>
PHONE NUMBER OF PREPARER	1.4	<u>859-236-4561 ext. 7857</u>

SECTION 2: REPORT YEAR

CALENDAR YEAR OF REPORT	2.1	<u>2021</u>
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SECTION 3: MAJOR EVENT DAYS

T_{MED}	3.1	<u>8.52437</u>
FIRST DATE USED TO DETERMINE T_{MED}	3.2	<u>Jan. 1, 2016</u>
LAST DATE USED TO DETERMINE T_{MED}	3.3	<u>Dec. 31, 2020</u>
NUMBER OF MED IN REPORT YEAR	3.4	<u>10</u>

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

SECTION 4: SYSTEM RELIABILITY INFORMATION AND RESULTS

System-wide Information

TOTAL CUSTOMERS	<u>26956</u>	TOTAL CIRCUITS	<u>42</u>
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Excluding MED

5 YEAR AVERAGE		REPORTING YEAR	
SAIDI	<u>98.54</u>	SAIDI	<u>107.05</u>
SAIFI	<u>1.04</u>	SAIFI	<u>1.03</u>

Including MED

5 YEAR AVERAGE		REPORTING YEAR	
SAIDI	<u>233.33</u>	SAIDI	<u>732.50</u>
SAIFI	<u>1.88</u>	SAIFI	<u>2.60</u>

Notes:

- 1) All duration indices (SAIDI, CAIDI) 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, CAIDI, and T_{MED}

2021

Circuit #1

1. Substation Name and Number	Ballard (2)
2. Substation Location	Garrard-Fisher Ford Rd-Lancaster
3. Circuit Name and Number	Toddville(1)
4. Circuit Location	Sutton Lane, US Hwy. 27, Ballard Road, Swope Road
5. Total Circuit Length (Miles)	22.19
6. Customer Count	387
7. Date of Last Circuit Trim	2020
8. Outage Cause (% of Total Outage Numbers)	
Animals	0.00%
Lightning	4.95%
High Wind	0.00%
Equip. Failure	1.23%
Deteriorated	0.70%
Cars or Trucks	17.76%
Insulation broke	0.00%
Vegetation/Trees	0.00%
Trees Cut Into Line	0.00%
Equipment OL	7.97%
Rain/ Ice	0.00%
Cased by Others	67.40%
9. Circuit 5 Year Average (SAIDI)	0.462464641
10. Reporting Year (SAIDI)	0.667958656
11. Circuit 5 Year Average (SAIFI)	0.243080144
12. Reporting Year (SAIFI)	0.434108527
13. List of Corrective Action, If Any, Taken or To Be Taken	

2021

Circuit #2

1. Substation Name and Number	Highland(3)
2. Substation Location	Lincoln-GreasyRdgRd-Stanford
3. Circuit Name and Number	Ottenham(1)
4. Circuit Location	Ottenham, Hwy. 39, Broughtontown, Chapel Gap
5. Total Circuit Length (Miles)	91.97
6. Customer Count	784
7. Date of Last Circuit Trim	2017
8. Outage Cause (% of Total Outage Numbers)	
Animals	0.02%
Lightning	0.76%
High Wind	0.01%
Equip. Failure	43.76%
Deteriorated	0.00%
Cars or Trucks	0.89%
Insulation broke	0.00%
Vegetation/Trees	4.83%
Trees Cut Into Line	0.04%
Equipment OL	0.00%
Rain/ Ice	45.05%
Cased by Others	4.64%
9. Circuit 5 Year Average (SAIDI)	2.904690815
10. Reporting Year (SAIDI)	8.054315476
11. Circuit 5 Year Average (SAIFI)	1.798478435
12. Reporting Year (SAIFI)	2.932397959
13. List of Corrective Action, If Any, Taken or To Be Taken	

2021

Circuit #3

1. Substation Name and Number	Highland(3)
2. Substation Location	Lincoln-GreasyRdgRd-Stanford
3. Circuit Name and Number	Waynesburg(2)
4. Circuit Location	KY HWY 1247, Red Oak Ln, Rocky Hollow Rd, US HWY 27S, KY HWY 501, Greenbriar Rd
5. Total Circuit Length (Miles)	35.61
6. Customer Count	455
7. Date of Last Circuit Trim	2017
8. Outage Cause (% of Total Outage Numbers)	
Animals	1.44%
Lightning	18.89%
High Wind	5.30%
Equip. Failure	7.09%
Deteriorated	0.00%
Cars or Trucks	0.46%
Insulation broke	0.00%
Vegetation/Trees	6.66%
Trees Cut Into Line	0.00%
Equipment OL	0.00%
Rain/ Ice	56.86%
Cased by Others	3.29%
9. Circuit 5 Year Average (SAIDI)	1.09736297
10. Reporting Year (SAIDI)	4.400805861
11. Circuit 5 Year Average (SAIFI)	0.815279584
12. Reporting Year (SAIFI)	2.498901099
13. List of Corrective Action, If Any, Taken or To Be Taken	

2021

Circuit #4

1. Substation Name and Number	Highland(3)
2. Substation Location	Lincoln-GreasyRdgRd-Stanford
3. Circuit Name and Number	GreenRiver(3)
4. Circuit Location	Greasy Ridge Rd, Good Paster Rd, KyHwy 698, Martins Trail Spice Ridge, Peck Hollow, Hwy 198, Mt Salem Rd, Short Pike, Indian Creek, Angel Ridge Rd
5. Total Circuit Length (Miles)	135.27
6. Customer Count	1062
7. Date of Last Circuit Trim	2017
8. Outage Cause (% of Total Outage Numbers)	
	Animals 0.49%
	Lightning 6.48%
	High Wind 1.82%
	Equip. Failure 2.43%
	Deteriorated 0.00%
	Cars or Trucks 0.16%
	Insulation broke 0.00%
	Vegetation/Trees 2.29%
	Trees Cut Into Line 0.00%
	Equipment OL 0.00%
	Rain/ Ice 19.51%
	Cased by Others 66.82%
9. Circuit 5 Year Average (SAIDI)	2.953820485
10. Reporting Year (SAIDI)	5.728358443
11. Circuit 5 Year Average (SAIFI)	1.477811226
12. Reporting Year (SAIFI)	3.481167608
13. List of Corrective Action, If Any, Taken or To Be Taken	

2021

Circuit #5

1. Substation Name and Number	Loretto(8)
2. Substation Location	Marion-Loretto Rd-Lebanon
3. Circuit Name and Number	Spencer H.(3)
4. Circuit Location	Loretto Rd, Spencer Hamilton Rd
5. Total Circuit Length (Miles)	10.83
6. Customer Count	109
7. Date of Last Circuit Trim	2021
8. Outage Cause (% of Total Outage Numbers)	
Animals	1.62%
Lightning	18.43%
High Wind	0.00%
Equip. Failure	0.00%
Deteriorated	6.47%
Cars or Trucks	0.00%
Insulation broke	2.67%
Vegetation/Trees	0.00%
Trees Cut Into Line	0.00%
Equipment OL	1.15%
Rain/ Ice	60.35%
Cased by Others	9.31%
9. Circuit 5 Year Average (SAIDI)	0.267301035
10. Reporting Year (SAIDI)	2.128134557
11. Circuit 5 Year Average (SAIFI)	0.316025235
12. Reporting Year (SAIFI)	1.137614679
13. List of Corrective Action, If Any, Taken or To Be Taken	

2021

Circuit #6

1. Substation Name and Number	H.T. Adams (10)
2. Substation Location	Mercer-DryBranchRd-Harrodsburg
3. Circuit Name and Number	Harrodsburg(1)
4. Circuit Location	Dry Branch Rd, Kyle Ln, Sparrow Ln, Danville Rd, Beaumont Ave, Bud James Ln, Bellows Mill Rd, Mercer Ave, Boyle Ave, Adams Ln, Brightleaf Dr, Cold Springs Dr
5. Total Circuit Length (Miles)	40.88
6. Customer Count	621
7. Date of Last Circuit Trim	2021
8. Outage Cause (% of Total Outage Numbers)	
Animals	14.10%
Lightning	2.62%
High Wind	0.00%
Equip. Failure	2.34%
Deteriorated	41.22%
Cars or Trucks	0.45%
Insulation broke	0.00%
Vegetation/Trees	2.19%
Trees Cut Into Line	0.00%
Equipment OL	0.00%
Rain/ Ice	0.00%
Cased by Others	37.08%
9. Circuit 5 Year Average (SAIDI)	0.454929228
10. Reporting Year (SAIDI)	0.50907139
11. Circuit 5 Year Average (SAIFI)	0.392541136
12. Reporting Year (SAIFI)	2.22705314
13. List of Corrective Action, If Any, Taken or To Be Taken	

2021

Circuit #7

1. Substation Name and Number	Gooch(11)
2. Substation Location	Lincoln-Rice Ln-Stanford
3. Circuit Name and Number	Preachersville(1)
4. Circuit Location	Preachersville Rd, Rice Ln, Swope Rd, Fall Lick Rd, Drakes Creek Rd, Swamper Rd, Harmons Lick Rd, Hwy 3249, Dripping Springs Rd, Hamilton Valley Rd, Cartersville Rd, White Lick Rd, Wallacetown Rd, Calico Rd
5. Total Circuit Length (Miles)	126.48
6. Customer Count	1131
7. Date of Last Circuit Trim	2017
8. Outage Cause (% of Total Outage Numbers)	
	Animals 0.89%
	Lightning 0.91%
	High Wind 21.63%
	Equip. Failure 0.39%
	Deteriorated 1.79%
	Cars or Trucks 0.06%
	Insulation broke 0.00%
	Vegetation/Trees 5.33%
	Trees Cut Into Line 0.03%
	Equipment OL 0.00%
	Rain/ Ice 0.22%
	Cased by Others 68.74%
9. Circuit 5 Year Average (SAIDI)	0.925965904
10. Reporting Year (SAIDI)	4.883996463
11. Circuit 5 Year Average (SAIFI)	0.458615386
12. Reporting Year (SAIFI)	4.274093722
13. List of Corrective Action, If Any, Taken or To Be Taken	

2021

Circuit #8

1. Substation Name and Number	Gooch(11)
2. Substation Location	Lincoln-Rice Ln-Stanford
3. Circuit Name and Number	Lancaster(4)
4. Circuit Location	Gilberts Creek Road, Goshen Road, Hwy. 590, US 27 North
5. Total Circuit Length (Miles)	46.53
6. Customer Count	820
7. Date of Last Circuit Trim	2016
8. Outage Cause (% of Total Outage Numbers)	
Animals	1.44%
Lightning	18.89%
High Wind	5.30%
Equip. Failure	7.09%
Deteriorated	0.00%
Cars or Trucks	0.46%
Insulation broke	0.00%
Vegetation/Trees	6.66%
Trees Cut Into Line	0.00%
Equipment OL	0.00%
Rain/ Ice	56.86%
Cased by Others	3.29%
9. Circuit 5 Year Average (SAIDI)	0.238294092
10. Reporting Year (SAIDI)	0.698821138
11. Circuit 5 Year Average (SAIFI)	0.226257555
12. Reporting Year (SAIFI)	1.179268293
13. List of Corrective Action, If Any, Taken or To Be Taken	

2021

Circuit #9

1. Substation Name and Number	Gooch(11)
2. Substation Location	Lincoln-Rice Ln-Stanford
3. Circuit Name and Number	Fairgrounds(5)
4. Circuit Location	KY Hwy 1247, Old Ottenheim Rd, US Hwy 27 S, Maywood Rd, KY Hwy 3249, KY Hwy 643
5. Total Circuit Length (Miles)	61.29
6. Customer Count	894
7. Date of Last Circuit Trim	2016
8. Outage Cause (% of Total Outage Numbers)	
Animals	2.10%
Lightning	1.74%
High Wind	1.56%
Equip. Failure	0.00%
Deteriorated	8.13%
Cars or Trucks	1.44%
Insulation broke	0.00%
Vegetation/Trees	4.83%
Trees Cut Into Line	0.00%
Equipment OL	0.00%
Rain/ Ice	59.23%
Cased by Others	20.96%
9. Circuit 5 Year Average (SAIDI)	1.04652653
10. Reporting Year (SAIDI)	5.303765846
11. Circuit 5 Year Average (SAIFI)	0.88849748
12. Reporting Year (SAIFI)	2.16442953
13. List of Corrective Action, If Any, Taken or To Be Taken	

2021

Circuit #10

1. Substation Name and Number	Garrard(13)
2. Substation Location	Garrard-Enterprise Dr-Lancaster
3. Circuit Name and Number	Gilberts Ck(2)
4. Circuit Location	Richmond Rd, Eastland Acres, Fall Lick Rd, Crab Orchard Rd, Stingy Creek Rd, Perkins Ln
5. Total Circuit Length (Miles)	31.75
6. Customer Count	366
7. Date of Last Circuit Trim	2016
8. Outage Cause (% of Total Outage Numbers)	
Animals	2.70%
Lightning	11.14%
High Wind	8.95%
Equip. Failure	37.12%
Deteriorated	0.00%
Cars or Trucks	0.00%
Insulation broke	0.00%
Vegetation/Trees	8.00%
Trees Cut Into Line	0.00%
Equipment OL	0.00%
Rain/ Ice	9.62%
Cased by Others	22.46%
9. Circuit 5 Year Average (SAIDI)	0.345720259
10. Reporting Year (SAIDI)	0.717167577
11. Circuit 5 Year Average (SAIFI)	0.327302454
12. Reporting Year (SAIFI)	0.412568306
13. List of Corrective Action, If Any, Taken or To Be Taken	

Electric Distribution Utility Annual Reliability Report

Additional pages may be attached as necessary
SECTION 6: VEGETATION MANAGEMENT PLAN REVIEW

Inter-County Energy will complete the revised 6 year vegetation management plan and will be restarting the new 6 year cycle in 2023. Inter-County Energy is closely monitoring the results of the cycle progress.

SECTION 7: UTILITY COMMENTS
