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PUBLIC SERVICE
COMMISSION

June 19, 2014

Mr. Jeff Derouen
Executive Director
Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602

**Re: ADMINISTRATIVE CASE NO. 2011-00450
AN INVESTIGATION OF THE RELIABILITY MEASURES OF KENTUCKY'S
JURISDICTIONAL ELECTRIC DISTRIBUTION UTILITIES**

Dear Mr. Derouen:

Enclosed is the Electric Distribution Utility Annual Reliability Report for Inter-County Energy Cooperative pursuant to the Public Service Commission Administrative Case No. 2011-00450 dated April 1, 2014.

If you have further questions or comments, please direct those to David Phelps, Vice President-Operations. His direct line is 859-936-7818 or email to davidp@intercountyenergy.net.

Sincerely,

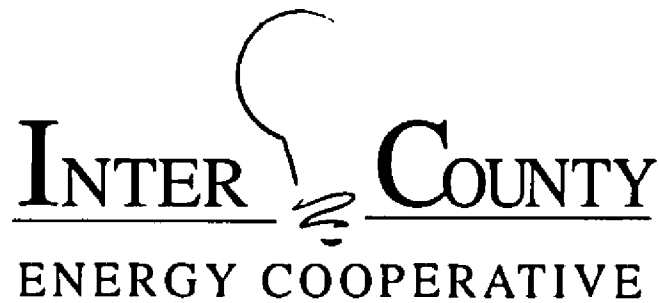
James L. Jacobus
President/CEO


Copy To: Mr. Kyle Willard, Director of Engineering, KY Public Service Commission

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A Touchstone Energy Cooperative 

Administrative Case No. 2011-00450

June 18, 2014

Electric Distribution Utility Annual Reliability Report

- Contact Information
- Report Year
- Major Event Days
- System Reliability Information and Results
- Circuit Reporting
- Vegetation Management Plan Review
- Utility Comments

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>David Pheips</u>
E-MAIL ADDRESS OF PREPARER	1.3	<u>davidp@intercountyenergy.net</u>
PHONE NUMBER OF PREPARER	1.4	<u>859-236-4561 ext. 7818</u>

SECTION 2: REPORT YEAR

CALENDAR YEAR OF REPORT	2.1	<u>2013</u>
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SECTION 3: MAJOR EVENT DAYS

T_{MED}	3.1	<u>12.85091</u>
FIRST DATE USED TO DETERMINE T_{MED}	3.2	<u>Jan. 1, 2008</u>
LAST DATE USED TO DETERMINE T_{MED}	3.3	<u>Dec. 31, 2012</u>
NUMBER OF MED IN REPORT YEAR	3.4	<u>3</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>26121</u>	TOTAL CIRCUITS	<u>42</u>
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Excluding MED

5 YEAR AVERAGE		REPORTING YEAR	
SAIDI	<u>107.18</u>	SAIDI	<u>77.01</u>
SAIFI	<u>1.29</u>	SAIFI	<u>0.92</u>

Including MED

5 YEAR AVERAGE		REPORTING YEAR	
SAIDI	<u>2723.59</u>	SAIDI	<u>143.27</u>
SAIFI	<u>2.29</u>	SAIFI	<u>1.11</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 April of each year
- 3) Reports cover the calendar year ending in the December before the reports are due.
- 4) IEEE 1368 (latest version) is used to define SAIDI, SAIFI, CAIDI, and T_{MED}

Section 5: Circuit Reporting

2013

Circuit #1:

1. Substation Name and Number	Ballard (2)
2. Substation Location	Lincoln-Fisher Ford Rd-Lancaster
3. Circuit Name and Number	WellsLanding(2)
4. Circuit Location	Wells Landing Rd, Old Bridge, Taylor Rd, Old Lexington Rd
5. Total Circuit Length (Miles)	24.16
6. Customer Count	484
7. Date of Last Circuit Trim	Feb-10
8. Outage Cause (% of Total Outage Numbers)	
Animals	15.94%
Lightning	74.44%
High Wind	2.46%
Equip. Failure	1.58%
Deteriorated	0.00%
Cars or Trucks	0.00%
Insulation broke	0.61%
Vegetation/Trees	2.46%
Trees Cut Into Line	0.00%
Equipment OL	0.00%
Rain/ Ice	2.52%
Cased by Others	0.00%
9. Circuit 5 Year Average (SAIDI)	45.98212679
10. Reporting Year (SAIDI)	120.8822314
11. Circuit 5 Year Average (SAIFI)	30.32066802
12. Reporting Year (SAIFI)	79.83471074
13. List of Corrective Action, If Any, Taken or To Be Taken 2014-2017 Work Plan Actions To Be Taken:	None

Circuit #2:

1. Substation Name and Number	Garrard(13)
2. Substation Location	Lincoln-Richmond Rd-Lancaster
3. Circuit Name and Number	Paintlick(1)
4. Circuit Location	

Lancster-Hwy. 52 E, Flatwoord, Hwy. 1295

5. Total Circuit Length (Miles)	72.61
6. Customer Count	587
7. Date of Last Circuit Trim	Dec-10
8. Outage Cause (% of Total Outage Numbers)	

Animals	3.06%
Lightning	16.78%
High Wind	60.86%
Equip. Failure	4.54%
Deteriorated	10.66%
Cars or Trucks	0.24%
Insulation broke	0.00%
Vegetation/Trees	3.85%
Trees Cut Into Line	0.00%
Equipment OL	0.00%
Rain/ Ice	0.00%
Cased by Others	0.00%

9. Circuit 5 Year Average (SAIDI)	64.10608823
10. Reporting Year (SAIDI)	81.11073253
11. Circuit 5 Year Average (SAIFI)	55.66960388
12. Reporting Year (SAIFI)	85.34923339

13. List of Corrective Action, If Any, Taken or To Be Taken

2014-2017 Work Plan Actions To Be Taken: 302 (2016) , 303 (2015), 304 (2016)

Gooch Pike-Replace 2.9 mile of 1 phase #4 ACSR with 1 phase 1/0 AAAC.

Hurt Lane-Convert 3.5 miles of 1 phase distribution from 7.2 to 14.4 KV.

Doty Lane-Convert 5.1 miles of 1 phase #4ACSR distribution circuit to 1 phase 1/0 AAAC.

Circuit #3:

1. Substation Name and Number	Gooch(11)
2. Substation Location	Lincoln-Rice Ln-Stanford
3. Circuit Name and Number	CrabOrchard(2)
4. Circuit Location	Copper Creek, Harmons Lick, KY 39
5. Total Circuit Length (Miles)	90.27
6. Customer Count	758
7. Date of Last Circuit Trim	May-12
8. Outage Cause (% of Total Outage Numbers)	
Animals	2.73%
Lightning	24.83%
High Wind	28.95%
Equip. Failure	5.37%
Deteriorated	1.36%
Cars or Trucks	15.53%
Insulation broke	0.00%
Vegetation/Trees	18.00%
Trees Cut Into Line	0.00%
Equipment OL	1.88%
Rain/ Ice	1.36%
Cased by Others	0.00%
9. Circuit 5 Year Average (SAIDI)	174.1812004
10. Reporting Year (SAIDI)	33.99868074
11. Circuit 5 Year Average (SAIFI)	146.8386351
12. Reporting Year (SAIFI)	200.2638522
13. List of Corrective Action, If Any, Taken or To Be Taken	
2014-2017 Work Plan Actions To Be Taken:	307 (2015), 310 (2014), 313 (2014)
Old Hwy 150-Convert 1.8 miles of 1 phase #2ACSR distribution circuit to 3 phase 1/0 AAAC.	
Pine Grove Rd-Convert 3.34 miles of 1 phase distribution from 7.2 to 14.4 KV.	
Deep Well Woods Rd-Convert 5.6 miles of 1 phase distribution from 7.2 to 14.4 KV.	

Circuit #4:

1. Substation Name and Number	Gooch(11)
2. Substation Location	Lincoln-Rice Ln-Stanford
3. Circuit Name and Number	Danville(3)
4. Circuit Location	Carmans Ln, Crawford Ln, US 150
5. Total Circuit Length (Miles)	36.21
6. Customer Count	657
7. Date of Last Circuit Trim	Jun-11
8. Outage Cause (% of Total Outage Numbers)	
Animals	1.05%
Lightning	37.55%
High Wind	0.39%
Equip. Failure	25.95%
Deteriorated	0.00%
Cars or Trucks	0.00%
Insulation broke	0.00%
Vegetation/Trees	6.12%
Trees Cut Into Line	0.00%
Equipment OL	0.00%
Rain/ Ice	28.74%
Cased by Others	0.19%
9. Circuit 5 Year Average (SAIDI)	50.51842076
10. Reporting Year (SAIDI)	154.8782344
11. Circuit 5 Year Average (SAIFI)	38.54417635
12. Reporting Year (SAIFI)	114.1552511
13. List of Corrective Action, If Any, Taken or To Be Taken 2014-2017 Work Plan Actions To Be Taken:	None

Circuit #5:

1. Substation Name and Number	Lebanon(7)
2. Substation Location	Marion-S. Harris St-Lebanon
3. Circuit Name and Number	Miller Pike(2)
4. Circuit Location	US 68, Miller Pike, Calvary Rd, Old Calvary Rd

5. Total Circuit Length (Miles)	84.29
6. Customer Count	740
7. Date of Last Circuit Trim	May-11
8. Outage Cause (% of Total Outage Numbers)	

Animals	1.37%
Lightning	12.77%
High Wind	9.35%
Equip. Failure	2.10%
Deteriorated	0.00%
Cars or Trucks	0.00%
Insulation broke	0.00%
Vegetation/Trees	74.41%
Trees Cut Into Line	0.00%
Equipment OL	0.00%
Rain/ Ice	0.00%
Cased by Others	0.00%

9. Circuit 5 Year Average (SAIDI)	49.50484324
10. Reporting Year (SAIDI)	36.05
11. Circuit 5 Year Average (SAIFI)	29.54675186
12. Reporting Year (SAIFI)	32.75675676

13. List of Corrective Action, if Any, Taken or To Be Taken
2014-2017 Work Plan Actions To Be Taken: 328 (2015), 329 (2014), 330 (2017)

- New Calvary Rd-Convert 2.7 miles of 1 phase #4 ACSR distribution circuit to 3 phase 1/0 AAAC.
- Old Hwy 68-Convert 1.8 miles of 1 phase distribution (13 transformers) from 7.2 to 14.4 KV.
- Arbuckle Road-Convert .75 miles of 1 phase 1/0AAAC distribution circuit to 3 phase 1/0 AAAC.



Circuit #6:

1. Substation Name and Number	<u>Marion Industrial(12)</u>
2. Substation Location	<u>Marion-Industrial Dr-Lebanon</u>
3. Circuit Name and Number	<u>Industrial(3)</u>
4. Circuit Location	<u>Lebanon-Industrial Dr</u>
5. Total Circuit Length (Miles)	<u>1.7</u>
6. Customer Count	<u>10</u>
7. Date of Last Circuit Trim	<u>Industrial Circuit</u>
8. Outage Cause (% of Total Outage Numbers)	
Animals	<u>9.11%</u>
Lightning	<u>42.42%</u>
High Wind	<u>0.00%</u>
Equip. Failure	<u>20.04%</u>
Deteriorated	<u>28.43%</u>
Cars or Trucks	<u>0.00%</u>
Insulation broke	<u>0.00%</u>
Vegetation/Trees	<u>0.00%</u>
Trees Cut Into Line	<u>0.00%</u>
Equipment OL	<u>0.00%</u>
Rain/ Ice	<u>0.00%</u>
Cased by Others	<u>0.00%</u>
9. Circuit 5 Year Average (SAIDI)	<u>167.7</u>
10. Reporting Year (SAIDI)	<u>488.5</u>
11. Circuit 5 Year Average (SAIFI)	<u>217</u>
12. Reporting Year (SAIFI)	<u>534</u>
13. List of Corrective Action, If Any, Taken or To Be Taken 2014-2017 Work Plan Actions To Be Taken:	None

Circuit #7:

1. Substation Name and Number	Perryville (6)
2. Substation Location	Boyle-Harrodsburg Rd-Perryville
3. Circuit Name and Number	Harrodsburg(1)
4. Circuit Location	US 68, Quirks Run, Bluegrass Pike
5. Total Circuit Length (Miles)	56.82
6. Customer Count	372
7. Date of Last Circuit Trim	Aug-11
8. Outage Cause (% of Total Outage Numbers)	
Animals	0.46%
Lightning	94.19%
High Wind	2.58%
Equip. Failure	0.00%
Deteriorated	0.00%
Cars or Trucks	0.00%
Insulation broke	0.00%
Vegetation/Trees	2.58%
Trees Cut Into Line	0.18%
Equipment OL	0.00%
Rain/ Ice	0.00%
Cased by Others	0.00%
9. Circuit 5 Year Average (SAIDI)	64.5120953
10. Reporting Year (SAIDI)	87.18817204
11. Circuit 5 Year Average (SAIFI)	38.85686755
12. Reporting Year (SAIFI)	56.12903226
13. List of Corrective Action, If Any, Taken or To Be Taken 2014-2017 Work Plan Actions To Be Taken:	None

Circuit #8:

1. Substation Name and Number	Shelby City(4)
2. Substation Location	Boyle-E Knob Lick Rd-Junction City
3. Circuit Name and Number	Alum Springs(4)
4. Circuit Location	Alum Springs, White Oak, Hwy. 34
5. Total Circuit Length (Miles)	77.75
6. Customer Count	1073
7. Date of Last Circuit Trim	May-14
8. Outage Cause (% of Total Outage Numbers)	
Animals	32.82%
Lightning	24.56%
High Wind	5.53%
Equip. Failure	24.61%
Deteriorated	3.78%
Cars or Trucks	0.00%
Insulation broke	0.04%
Vegetation/Trees	4.13%
Trees Cut Into Line	0.25%
Equipment OL	0.25%
Rain/ Ice	4.02%
Cased by Others	0.00%
9. Circuit 5 Year Average (SAIDI)	57.08761714
10. Reporting Year (SAIDI)	98.71015844
11. Circuit 5 Year Average (SAIFI)	79.67297301
12. Reporting Year (SAIFI)	100.1491146
13. List of Corrective Action, If Any, Taken or To Be Taken	
2014-2017 Work Plan Actions To Be Taken:	347 (2016)
Lebanon Road-Convert 1.3 miles of 1 phase 1/0AAAC distribution circuit to 3 phase 1/0 AAAC.	

Circuit #9:

1. Substation Name and Number	T. Adams (10)
2. Substation Location	Mercer-Dry Branch-Harrodsburg
3. Circuit Name and Number	Dixville(2)
4. Circuit Location	Rose Hill, Perryville Rd, Dixville
5. Total Circuit Length (Miles)	63.53
6. Customer Count	620
7. Date of Last Circuit Trim	Apr-11
8. Outage Cause (% of Total Outage Numbers)	
Animals	1.66%
Lightning	4.70%
High Wind	16.22%
Equip. Failure	4.64%
Deteriorated	71.17%
Cars or Trucks	0.00%
Insulation broke	0.00%
Vegetation/Trees	1.61%
Trees Cut Into Line	0.00%
Equipment OL	0.00%
Rain/ Ice	0.00%
Cased by Others	0.00%
9. Circuit 5 Year Average (SAIDI)	98.94713643
10. Reporting Year (SAIDI)	124.4822581
11. Circuit 5 Year Average (SAIFI)	52.17999952
12. Reporting Year (SAIFI)	83.61290323
13. List of Corrective Action, If Any, Taken or To Be Taken	
2014-2017 Work Plan Actions To Be Taken:	314 (2014), 315 (2014)
Mackville Road-Convert 1.3 miles of 1 phase #4ACSR distribution circuit to 3 phase 1/0 AAAC.	
Johnson Road-Convert .3 miles of 1 phase #4ACSR distribution circuit to 2 phase 1/0 AAAC.	

Electric Distribution Utility Annual Reliability Report

Additional pages may be attached as necessary

SECTION 6: VEGETATION MANAGEMENT PLAN REVIEW

Inter-County Energy completed the first year of its 5 year vegetation management plan. Inter-County Energy is closely monitoring the results of the first year of our second cycle.

SECTION 7: UTILITY COMMENTS