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Cooperative

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PUBLIC SERVICE  
COMMISSION

March 11, 2015

Mr. Jeff Derouen, Executive Director  
Kentucky Public Service Commission  
211 Sower Blvd.  
PO Box 615  
Frankfort, KY 40602

RE: Administrative Case No. 2011-00450

Dear Mr. Derouen:

Please find an original paper copy and an electronic version of Shelby Energy's 2014 Distribution Reliability Report as outlined in the May 30, 2013 Order and the April 1, 2014 Order pertaining to Administrative Case No. 2011-00450.

Please let me know should you have any questions or need further information.

Sincerely,

*Nick Morris*

*Nick Morris*

Engineering Manager

Work: 502-633-4420

[Nick@shelbyenergy.com](mailto:Nick@shelbyenergy.com)

Enclosures

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[www.shelbyenergy.com](http://www.shelbyenergy.com)

620 Old Finchville Road · Shelbyville, Kentucky 40065-1714

Shelby Co. (502)633-4420 · Trimble Co. (502)255-3001 · 1-800-292-6585

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# KENTUCKY PUBLIC SERVICE COMMISSION

## Electric Distribution Utility Annual Reliability Report

### SECTION 1: CONTACT INFORMATION

|                            |  |
|----------------------------|--|
| UTILITY NAME               | Shelby Energy Cooperative, Inc                                   |
| REPORT PREPARED BY         | Nick Morris, Manager of Engineering                              |
| E-MAIL ADDRESS OF PREPARER | <a href="mailto:Nick@shelbyenergy.com">Nick@shelbyenergy.com</a> |
| PHONE NUMBER OF PREPARER   | 502-633-4420 Ext. 523  |

### SECTION 2: REPORT YEAR

|                         |      |
|-------------------------|------|
| CALENDAR YEAR OF REPORT | 2014 |
|-------------------------|------|

### SECTION 3: MAJOR EVENT DAYS

|  |           |
|--|-----------|
| $T_{MED}$                              | 12.51     |
| FIRST DATE USED TO DETERMINE $T_{MED}$ | 1-Jan-09  |
| LAST DATE USED TO DETERMINE $T_{MED}$  | 31-Dec-13 |
| NUMBER OF MED IN REPORT YEAR           | 7         |

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         | 15,638 | TOTAL CIRCUITS | 41     |
| Excluding MED           |        |                |        |
| 5 YEAR AVERAGE          |        | REPORTING YEAR |        |
| SAIDI                   | 103.81 | SAIDI          | 138.68 |
| SAIFI                   | 0.93   | SAIFI          | 1.11   |
| Including MED           |        |                |        |
| 5 YEAR AVERAGE          |        | REPORTING YEAR |        |
| SAIDI                   | 882.05 | SAIDI          | 477.64 |
| SAIFI                   | 1.60   | SAIFI          | 1.82   |

Notes:

- 1) All duration indices (SAIDI) 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 1366 (latest version) is used to define SAIDI, SAIFI, and  $T_{MED}$

# KENTUCKY PUBLIC SERVICE COMMISSION

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## Electric Distribution Utility Annual Reliability Report

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SECTION 5: CIRCUIT REPORTING (SEE ATTACHED)  
(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)  
(CIRCUITS NUMBERS SHOULD BE REPORTED EXCLUDING MED)

Circuit #

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

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

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## Electric Distribution Utility Annual Reliability Report

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

Please see attachment

# KENTUCKY PUBLIC SERVICE COMMISSION

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## Electric Distribution Utility Annual Reliability Report

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### SECTION 7: UTILITY COMMENTS

We anticipate having a new sectionalizing study complete by June 30, 2015. Field implementation is expected to begin upon completion of the study.

**Section 5: Circuit Reporting**  
**Circuits with SAIDI and/or SAIFI Exceeding 5 Year Average**  
**(Excluding Major Event Days)**

|    |   |   |
|----|---|---|
| 1  | Sub Name & Number                               | <b>Logan #1 – Sub 1</b>                               |
| 2  | Substation Location                             | Brunerstown Road                                      |
| 3  | Circuit Name & Number                           | Finchville – Olive Branch: Circuit #2                 |
| 4  | Circuit Location (County)                       | Shelby County   |
| 5  | Total Circuit Length (Miles)                    | 21  |
| 6  | Customers on Circuit                            | 142   |
| 7  | Date of Last Circuit Trim (VM)                  | 2010  |
| 8  | Outage Cause w/ % of Total                      | Power Supplier: 65% / Lightning: 23% / Equipment: 12% |
| 9  | SAIDI 5-Year Average                            | 70.02   |
| 10 | Reporting Year SAIDI                            | 112.42  |
| 11 | SAIFI 5-Year Average                            | 0.71  |
| 12 | Reporting Year SAIFI                            | 1.46  |
| 13 | Corrective Action, If Any, Taken or to be Taken | None at this time                                     |

|    |   |  |
|----|---|--|
| 1  | Sub Name & Number                               | <b>Logan #1 – Sub 1</b>                          |
| 2  | Substation Location                             | Brunerstown Road                                 |
| 3  | Circuit Name & Number                           | Simpsonville: Circuit #3                         |
| 4  | Circuit Location (County)                       | Shelby County                                    |
| 5  | Total Circuit Length (Miles)                    | 68   |
| 6  | Customers on Circuit                            | 523  |
| 7  | Date of Last Circuit Trim (VM)                  | 2011   |
| 8  | Outage Cause w/ % of Total                      | Wind: 53% / Equipment: 23% / Power Supplier: 16% |
| 9  | SAIDI 5-Year Average                            | 27.79  |
| 10 | Reporting Year SAIDI                            | 542.25   |
| 11 | SAIFI 5-Year Average                            | 0.24   |
| 12 | Reporting Year SAIFI                            | 3.91   |
| 13 | Corrective Action, If Any, Taken or to be Taken | None at this time                                |

|    |   |                                     |
|----|---|-------------------------------------|
| 1  | Sub Name & Number                               | <b>Logan #1 – Sub 1</b>             |
| 2  | Substation Location                             | Brunerstown Road                    |
| 3  | Circuit Name & Number                           | Bullskin/Todds Point: Circuit #4    |
| 4  | Circuit Location (County)                       | Shelby County                       |
| 5  | Total Circuit Length (Miles)                    | 53                                  |
| 6  | Customers on Circuit                            | 413                                 |
| 7  | Date of Last Circuit Trim (VM)                  | 2010                                |
| 8  | Outage Cause w/ % of Total                      | Vehicles: 55% / Power Supplier: 30% |
| 9  | SAIDI 5-Year Average                            | 142.26                              |
| 10 | Reporting Year SAIDI                            | 241.02                              |
| 11 | SAIFI 5-Year Average                            | 1.05                                |
| 12 | Reporting Year SAIFI                            | 2.06                                |
| 13 | Corrective Action, If Any, Taken or to be Taken | ROW Cut Scheduled for 2015          |

|    |   |  |
|----|---|--|
| 1  | Sub Name & Number                               | <b>Clayvillage – Sub 2</b>                       |
| 2  | Substation Location                             | Benson Pike                                      |
| 3  | Circuit Name & Number                           | Knobs: Circuit #4                                |
| 4  | Circuit Location (County)                       | Shelby County                                    |
| 5  | Total Circuit Length (Miles)                    | 36   |
| 6  | Customers on Circuit                            | 241  |
| 7  | Date of Last Circuit Trim (VM)                  | 2012   |
| 8  | Outage Cause w/ % of Total                      | Lightning: 74% / Trees & Ice: 17%                |
| 9  | SAIDI 5-Year Average                            | 181.85   |
| 10 | Reporting Year SAIDI                            | 332.69   |
| 11 | SAIFI 5-Year Average                            | 1.67   |
| 12 | Reporting Year SAIFI                            | 3.22   |
| 13 | Corrective Action, If Any, Taken or to be Taken | Future CWP project to rebuild 2.44 miles of line |

|    |   |                                      |
|----|---|--------------------------------------|
| 1  | Sub Name & Number                               | <b>Campbellsburg – Sub 4</b>         |
| 2  | Substation Location                             | Orem Lane                            |
| 3  | Circuit Name & Number                           | Mound Hill: Circuit #1               |
| 4  | Circuit Location (County)                       | Henry & Carroll County               |
| 5  | Total Circuit Length (Miles)                    | 94                                   |
| 6  | Customers on Circuit                            | 674                                  |
| 7  | Date of Last Circuit Trim (VM)                  | 2010                                 |
| 8  | Outage Cause w/ % of Total                      | Sched. Construction: 79% / Trees: 7% |
| 9  | SAIDI 5-Year Average                            | 137.23                               |
| 10 | Reporting Year SAIDI                            | 267.87                               |
| 11 | SAIFI 5-Year Average                            | 1.34                                 |
| 12 | Reporting Year SAIFI                            | 1.21                                 |
| 13 | Corrective Action, If Any, Taken or to be Taken | January 2015 – Completed CWP Rebuild |

|    |   |                                   |
|----|---|-----------------------------------|
| 1  | Sub Name & Number                               | <b>Campbellsburg – Sub 4</b>      |
| 2  | Substation Location                             | Orem Lane                         |
| 3  | Circuit Name & Number                           | Perry Park: Circuit #2            |
| 4  | Circuit Location (County)                       | Henry & Owen County               |
| 5  | Total Circuit Length (Miles)                    | 97                                |
| 6  | Customers on Circuit                            | 591                               |
| 7  | Date of Last Circuit Trim (VM)                  | 2013                              |
| 8  | Outage Cause w/ % of Total                      | Equipment: 68% / Trees & Ice: 13% |
| 9  | SAIDI 5-Year Average                            | 89.36                             |
| 10 | Reporting Year SAIDI                            | 174.69                            |
| 11 | SAIFI 5-Year Average                            | 0.85                              |
| 12 | Reporting Year SAIFI                            | 1.32                              |
| 13 | Corrective Action, If Any, Taken or to be Taken | None at this time                 |

|    |   |  |
|----|---|--|
| 1  | Sub Name & Number                               | <b>Campbellsburg – Sub 4</b>                   |
| 2  | Substation Location                             | Orem Lane                                      |
| 3  | Circuit Name & Number                           | Industrial Park/State Police: Circuit #4       |
| 4  | Circuit Location (County)                       | Henry & Trimble County                         |
| 5  | Total Circuit Length (Miles)                    | 43   |
| 6  | Customers on Circuit                            | 479  |
| 7  | Date of Last Circuit Trim (VM)                  | 2011   |
| 8  | Outage Cause w/ % of Total                      | Equipment: 80% / Sched. Construction: 11%      |
| 9  | SAIDI 5-Year Average                            | 79.76  |
| 10 | Reporting Year SAIDI                            | 375.94   |
| 11 | SAIFI 5-Year Average                            | 1.28   |
| 12 | Reporting Year SAIFI                            | 1.29   |
| 13 | Corrective Action, If Any, Taken or to be Taken | CWP project in progress – 5.1 mile 3ph rebuild |

|    |   |   |
|----|---|---|
| 1  | Sub Name & Number                               | <b>Southville – Sub 6</b>                       |
| 2  | Substation Location                             | Hempridge Road                                  |
| 3  | Circuit Name & Number                           | Ken Acres/Scott Pike: Circuit #1                |
| 4  | Circuit Location (County)                       | Shelby County                                   |
| 5  | Total Circuit Length (Miles)                    | 87  |
| 6  | Customers on Circuit                            | 1173  |
| 7  | Date of Last Circuit Trim (VM)                  | 2011  |
| 8  | Outage Cause w/ % of Total                      | Lightning: 83% / Equipment: 12%                 |
| 9  | SAIDI 5-Year Average                            | 19.86   |
| 10 | Reporting Year SAIDI                            | 101.07  |
| 11 | SAIFI 5-Year Average                            | 0.19  |
| 12 | Reporting Year SAIFI                            | 0.88  |
| 13 | Corrective Action, If Any, Taken or to be Taken | Future CWP project to rebuild 2.0 miles of line |

|    |   |   |
|----|---|---|
| 1  | Sub Name & Number                               | <b>Southville – Sub 6</b>                       |
| 2  | Substation Location                             | Hempridge Road                                  |
| 3  | Circuit Name & Number                           | Zaring Mill Road: Circuit #3                    |
| 4  | Circuit Location (County)                       | Shelby County                                   |
| 5  | Total Circuit Length (Miles)                    | 56  |
| 6  | Customers on Circuit                            | 480   |
| 7  | Date of Last Circuit Trim (VM)                  | 2011  |
| 8  | Outage Cause w/ % of Total                      | Lightning: 93% / Trees: 4%                      |
| 9  | SAIDI 5-Year Average                            | 52.12   |
| 10 | Reporting Year SAIDI                            | 109.23  |
| 11 | SAIFI 5-Year Average                            | 0.77  |
| 12 | Reporting Year SAIFI                            | 0.24  |
| 13 | Corrective Action, If Any, Taken or to be Taken | Future CWP project to rebuild 1.0 miles of line |

|    |   |  |
|----|---|--|
| 1  | Sub Name & Number                               | <b>Milton – Sub 7</b>                            |
| 2  | Substation Location                             | Pecks Pike Road                                  |
| 3  | Circuit Name & Number                           | Fisher's Ridge: Circuit #4                       |
| 4  | Circuit Location (County)                       | Trimble County                                   |
| 5  | Total Circuit Length (Miles)                    | 31   |
| 6  | Customers on Circuit                            | 381  |
| 7  | Date of Last Circuit Trim (VM)                  | 2009   |
| 8  | Outage Cause w/ % of Total                      | Vehicles: 71% / Trees: 25%                       |
| 9  | SAIDI 5-Year Average                            | 51.42  |
| 10 | Reporting Year SAIDI                            | 28.85  |
| 11 | SAIFI 5-Year Average                            | 0.41   |
| 12 | Reporting Year SAIFI                            | 0.58   |
| 13 | Corrective Action, If Any, Taken or to be Taken | Future CWP project to rebuild 1.16 miles of line |

|    |   |  |
|----|---|--|
| 1  | Sub Name & Number                               | <b>Budd – Sub 8</b>                                |
| 2  | Substation Location                             | Old Brunerstown Road                               |
| 3  | Circuit Name & Number                           | Budd Company: Circuit #1                           |
| 4  | Circuit Location (County)                       | Shelby County                                      |
| 5  | Total Circuit Length (Miles)                    | .08  |
| 6  | Customers on Circuit                            | 1  |
| 7  | Date of Last Circuit Trim (VM)                  | 2013   |
| 8  | Outage Cause w/ % of Total                      | Power Supplier: 100%                               |
| 9  | SAIDI 5-Year Average                            | 0.00   |
| 10 | Reporting Year SAIDI                            | 73.20  |
| 11 | SAIFI 5-Year Average                            | 0.00   |
| 12 | Reporting Year SAIFI                            | 1.00   |
| 13 | Corrective Action, If Any, Taken or to be Taken | East KY Power removed relay from protection scheme |

|    |   |  |
|----|---|--|
| 1  | Sub Name & Number                               | <b>Bekaert #1 – Sub 9</b>                                |
| 2  | Substation Location                             | Shelby County Industrial Park                            |
| 3  | Circuit Name & Number                           | Bekaert: Circuit #1                                      |
| 4  | Circuit Location (County)                       | Shelby County  |
| 5  | Total Circuit Length (Miles)                    | .09  |
| 6  | Customers on Circuit                            | 1  |
| 7  | Date of Last Circuit Trim (VM)                  | 2013   |
| 8  | Outage Cause w/ % of Total                      | Power Supplier: 100%                                     |
| 9  | SAIDI 5-Year Average                            | 116.52   |
| 10 | Reporting Year SAIDI                            | 195.00   |
| 11 | SAIFI 5-Year Average                            | 0.80   |
| 12 | Reporting Year SAIFI                            | 2.00   |
| 13 | Corrective Action, If Any, Taken or to be Taken | Animal deterrent system has been installed at substation |

|    |   |  |
|----|---|--|
| 1  | Sub Name & Number                               | <b>Bekaert #1 – Sub 9</b>                                |
| 2  | Substation Location                             | Shelby Country Industrial Park                           |
| 3  | Circuit Name & Number                           | Alcan: Circuit #2  |
| 4  | Circuit Location (County)                       | Shelby County  |
| 5  | Total Circuit Length (Miles)                    | 4  |
| 6  | Customers on Circuit                            | 4  |
| 7  | Date of Last Circuit Trim (VM)                  | 2013   |
| 8  | Outage Cause w/ % of Total                      | Power Supplier: 100%                                     |
| 9  | SAIDI 5-Year Average                            | 40.34  |
| 10 | Reporting Year SAIDI                            | 195.00   |
| 11 | SAIFI 5-Year Average                            | 0.30   |
| 12 | Reporting Year SAIFI                            | 2.00   |
| 13 | Corrective Action, If Any, Taken or to be Taken | Animal deterrent system has been installed at substation |

|    |   |   |
|----|---|---|
| 1  | Sub Name & Number                               | <b>Logan #2 – Sub 10</b>                                |
| 2  | Substation Location                             | Brunerstown Road  |
| 3  | Circuit Name & Number                           | Industrial Park – Circuit #5                            |
| 4  | Circuit Location (County)                       | Shelby County   |
| 5  | Total Circuit Length (Miles)                    | 83  |
| 6  | Customers on Circuit                            | 888   |
| 7  | Date of Last Circuit Trim (VM)                  | 2011  |
| 8  | Outage Cause w/ % of Total                      | Lightning: 29% / Power Supplier: 19% / Trees & Ice: 11% |
| 9  | SAIDI 5-Year Average                            | 123.40  |
| 10 | Reporting Year SAIDI                            | 382.40  |
| 11 | SAIFI 5-Year Average                            | 1.49  |
| 12 | Reporting Year SAIFI                            | 3.48  |
| 13 | Corrective Action, If Any, Taken or to be Taken | None at this time                                       |

|    |   |                             |
|----|---|-----------------------------|
| 1  | Sub Name & Number                               | <b>Jericho – Sub 11</b>     |
| 2  | Substation Location                             | Lake Jericho Road           |
| 3  | Circuit Name & Number                           | Smithfield: Circuit #3      |
| 4  | Circuit Location (County)                       | Henry County                |
| 5  | Total Circuit Length (Miles)                    | 51                          |
| 6  | Customers on Circuit                            | 439                         |
| 7  | Date of Last Circuit Trim (VM)                  | 2010                        |
| 8  | Outage Cause w/ % of Total                      | Trees: 56% / Lightning: 34% |
| 9  | SAIDI 5-Year Average                            | 102.99                      |
| 10 | Reporting Year SAIDI                            | 82.34                       |
| 11 | SAIFI 5-Year Average                            | 0.36                        |
| 12 | Reporting Year SAIFI                            | 1.13                        |
| 13 | Corrective Action, If Any, Taken or to be Taken | None at this time           |

|    |   |  |
|----|---|--|
| 1  | Sub Name & Number                               | <b>Bekaert #2 – Sub 12</b>                               |
| 2  | Substation Location                             | Shelby Country Industrial Park                           |
| 3  | Circuit Name & Number                           | Lowes/Walmart: Circuit #2                                |
| 4  | Circuit Location (County)                       | Shelby County  |
| 5  | Total Circuit Length (Miles)                    | 5  |
| 6  | Customers on Circuit                            | 12   |
| 7  | Date of Last Circuit Trim (VM)                  | 2013   |
| 8  | Outage Cause w/ % of Total                      | Power Supplier: 100%                                     |
| 9  | SAIDI 5-Year Average                            | 44.60  |
| 10 | Reporting Year SAIDI                            | 98.40  |
| 11 | SAIFI 5-Year Average                            | 0.51   |
| 12 | Reporting Year SAIFI                            | 2.00   |
| 13 | Corrective Action, If Any, Taken or to be Taken | Animal deterrent system has been installed at substation |

|    |   |  |
|----|---|--|
| 1  | Sub Name & Number                               | <b>Bekaert #2 – Sub 12</b>                               |
| 2  | Substation Location                             | Shelby Country Industrial Park                           |
| 3  | Circuit Name & Number                           | Omega #1: Circuit #3                                     |
| 4  | Circuit Location (County)                       | Shelby County  |
| 5  | Total Circuit Length (Miles)                    | 1.5  |
| 6  | Customers on Circuit                            | 12   |
| 7  | Date of Last Circuit Trim (VM)                  | 2013   |
| 8  | Outage Cause w/ % of Total                      | Power Supplier: 100%                                     |
| 9  | SAIDI 5-Year Average                            | 47.77  |
| 10 | Reporting Year SAIDI                            | 98.40  |
| 11 | SAIFI 5-Year Average                            | 0.51   |
| 12 | Reporting Year SAIFI                            | 2.00   |
| 13 | Corrective Action, If Any, Taken or to be Taken | Animal deterrent system has been installed at substation |

|    |   |   |
|----|---|---|
| 1  | Sub Name & Number                               | <b>Long Run – Sub 13</b>                            |
| 2  | Substation Location                             | Aiken Road  |
| 3  | Circuit Name & Number                           | Todds Point: Circuit #2                             |
| 4  | Circuit Location (County)                       | Jefferson & Shelby County                           |
| 5  | Total Circuit Length (Miles)                    | 42  |
| 6  | Customers on Circuit                            | 451   |
| 7  | Date of Last Circuit Trim (VM)                  | 2014  |
| 8  | Outage Cause w/ % of Total                      | Vehicles: 58% / Wind: 22% / Sched. Maintenance: 10% |
| 9  | SAIDI 5-Year Average                            | 169.55  |
| 10 | Reporting Year SAIDI                            | 360.80  |
| 11 | SAIFI 5-Year Average                            | 1.59  |
| 12 | Reporting Year SAIFI                            | 2.07  |
| 13 | Corrective Action, If Any, Taken or to be Taken | None at this time                                   |

|    |   |  |
|----|---|--|
| 1  | Sub Name & Number                               | <b>Bekaert #3 – Sub 14</b>                 |
| 2  | Substation Location                             | Shelby Country Industrial Park             |
| 3  | Circuit Name & Number                           | Sigma: Circuit #2                          |
| 4  | Circuit Location (County)                       | Shelby County                              |
| 5  | Total Circuit Length (Miles)                    | 0.63                                       |
| 6  | Customers on Circuit                            | 4  |
| 7  | Date of Last Circuit Trim (VM)                  | 2013                                       |
| 8  | Outage Cause w/ % of Total                      | Power Supplier: 98%                        |
| 9  | SAIDI 5-Year Average                            | 12.30                                      |
| 10 | Reporting Year SAIDI                            | 176.40                                     |
| 11 | SAIFI 5-Year Average                            | 0.10                                       |
| 12 | Reporting Year SAIFI                            | 2.25                                       |
| 13 | Corrective Action, If Any, Taken or to be Taken | Animal deterrent system has been installed |

|    |   |  |
|----|---|--|
| 1  | Sub Name & Number                               | <b>Veechdale – Sub 15</b>                          |
| 2  | Substation Location                             | Interstate 64                                      |
| 3  | Circuit Name & Number                           | Simpsonville/Truck Stop: Circuit #1                |
| 4  | Circuit Location (County)                       | Shelby County                                      |
| 5  | Total Circuit Length (Miles)                    | 4  |
| 6  | Customers on Circuit                            | 96   |
| 7  | Date of Last Circuit Trim (VM)                  | 2013   |
| 8  | Outage Cause w/ % of Total                      | Sched. Maintenance: 69% / Sched. Construction: 31% |
| 9  | SAIDI 5-Year Average                            | 0.00   |
| 10 | Reporting Year SAIDI                            | 0.84   |
| 11 | SAIFI 5-Year Average                            | 0.00   |
| 12 | Reporting Year SAIFI                            | 0.02   |
| 13 | Corrective Action, If Any, Taken or to be Taken | None at this time                                  |

## Section 6: Vegetation Management Plan Review

### VEGETATION MANAGEMENT PLAN (VMP)

Shelby Energy Cooperative ("Shelby") is an electric distribution system serving ten (10) counties in north-central Kentucky: Shelby, Henry, Trimble, Carroll, Owen, Oldham, Jefferson, Franklin, Spencer, and Anderson. The system consists of approximately 15,379 meters / accounts and approximately 1,831 miles of overhead and underground primary conductor. Shelby has approximately 315 miles of secondary and services. Members are served by fourteen (14) substations that are owned and operated by East Kentucky Power Cooperative with headquarters in Winchester, KY. An attachment showing the service territory and substations for Shelby is included (Exhibit 1).

Vegetation management (VM) plays an integral role in accomplishing the mission statement for Shelby Energy Cooperative:

*"Shelby Energy Cooperative will provide safe, reliable and cost-effective energy service, while preserving our environment. Our mission is to educate members, employees, and the public with knowledge and tools to use energy safely and efficiently to enhance their quality of life."*

Maintaining effective VM is a major factor in promoting a safer environment within Shelby's certified territory. VM reduces the possibility of accidental contact with energized power lines thus providing safer conditions for the public, for employees and for contractors. Reliability and power quality enhancements are also afforded by proper VM.

### RIGHT OF WAY (ROW) CLEARING CYCLE

Shelby uses a clearing cycle of four (4) to five (5) years that combines ROW trimming, spraying and mowing. The variance of four (4) to five (5) years is used to adjust the clearing cycle based on yearly growing conditions. This in turn helped Shelby prioritize the circuits to be managed. Hourly contract cutting crews (crews) are utilized by Shelby with no less than one (1) crew working year around as weather and/or work permits.

Routinely one (1) spray crew is used several months during the summer season to control undergrowth in areas where the ROW was trimmed/cut the previous year. The spraying is focused in cross country areas where high undergrowth problems are recognized. On average, 350 circuit-miles are cleared of vegetation by trimming, cutting and/or spraying annually. Shelby elected in 2012 to bid feeders to different tree service companies. These companies utilize their employees and equipment to ensure the ROW is maintained in the manner we require.

These crews and equipment enables Shelby to cover more rough terrain and clear ROW issues in many cross country locations. Shelby complies with the RUS ROW Clearing Guide ~ M1.30G.

#### **PERFORMANCE OF MAINTENANCE**

The ROW clearing cycle is established and adjusted as needed to manage the ROW cycle and maintain a high standard of service, quality and reliability. Trouble areas receive timely attention to resolve associated outage or service issues as discovered. Shelby O&E personnel and contractors report problems during their routine work and patrolling efforts to define locations requiring attention to ROW issues. These issues are handled on a case-by-case basis depending upon the severity of the issue.

#### **RELIABILITY CRITERIA AND REPORTS**

Shelby's Operations and Engineering (O&E) employees monitor daily, monthly, and annual outage reports and service requests initiated by employees, contractors and cooperative members. This information is reviewed to determine if trends exist indicating a deterioration of service quality or reliability within any specific area. In addition, Shelby utilizes the services of a professional engineering consultant to review outage data and assist in resolving service quality or reliability issues.

#### **PLAN EVALUATION**

Shelby regularly monitors outages to determine their underlying cause(s). These findings are reviewed monthly, annually, and over a rolling five (5) year period to determine if trending indicates a decline in service quality or reliability is developing within an area of the cooperative's system. Employees of Shelby's O&E department work with a professional engineering consultant to calculate, review, and evaluate standard reliability indices of SAIFI, SAIDI, and CAIDI. Shelby's O&E personnel and its professional engineering consultant continuously monitor and verify that reliability issues are resolved in such a manner that best benefits the members of the cooperative.

Exhibit #1



## SHELBY ENERGY COOPERATIVE SERVICE AREA

Exhibit #2

