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Boyd. F Taylor
(1924-2012)

April 16, 2020

Director of Engineering
Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40602-0615

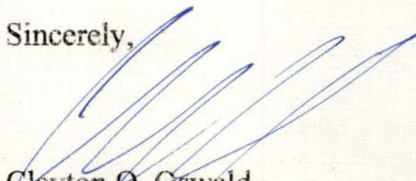
Re: Jackson Energy Cooperative's 2019 Annual Reliability Report
Administrative Case Number 2011-00450

Dear Sir or Madam:

Please find enclosed with this letter Jackson Energy Cooperative's 2019 Annual Reliability Report in Administrative Case Number 2011-00450. Please feel free to contact me if you have any questions or concerns.

Best regards.

Sincerely,



Clayton O. Oswald

RECEIVED

APR 21 2020

PUBLIC SERVICE
COMMISSION

Electric Distribution Utility Annual Reliability Report

SECTION 1: CONTACT INFORMATION

UTILITY NAME	Jackson Energy Cooperative
REPORT PREPARED BY	Ricky Caudill
E-MAIL ADDRESS OF PREPARER	rickcaudill@jacksonenergy.com
PHONE NUMBER OF PREPARER	606-364-9217

SECTION 2: REPORT YEAR

CALENDAR YEAR OF REPORT	2019
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SECTION 3: MAJOR EVENT DAYS

T_{MED}	10.854
FIRST DATE USED TO DETERMINE T_{MED}	1/1/2019
LAST DATE USED TO DETERMINE T_{MED}	12/31/2019
NUMBER OF MED IN REPORT YEAR	3

NOTE: Per IEEE 1366 T_{MED} should be calculated using the daily SAIDI values for the five prior years.

SECTION 4: SYSTEM RELIABILITY INFORMATION AND RESULTS

System-wide Information

TOTAL CUSTOMERS	<u>50516</u>	TOTAL CIRCUITS	<u>114</u>
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Excluding MED

	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	<u>193.29</u>	SAIDI	<u>203.28</u>
SAIFI	<u>1.6205</u>	SAIFI	<u>1.6521</u>

Including MED

	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	<u>314.80</u>	SAIDI	<u>241.75</u>
SAIFI	<u>1.8559</u>	SAIFI	<u>1.8843</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}

SECTION 5: CIRCUIT REPORTING

CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING THE 5 YEAR AVERAGE

CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED

CIRCUIT #: 1

1. SUBSTATION NAME AND NUMBER Annville E92
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Welchburg Egypt Rd., Annville KY 40402
3. CIRCUIT NAME AND NUMBER Bond F2
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
HWY 3630 toward Bond
5. TOTAL CIRCUIT LENGTH (MILES) 57.5
6. CUSTOMER COUNT FOR THIS CIRCUIT 809
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2017
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIFI
Equipment	73.9%
Lightning	0.5%
Maintenance	0.2%
Scheduled	5.9%
Squirrel	2.1%
Tree/Limb out of ROW	5.4%
Unknown Cause	10.1%
Vehicles/Heavy Equipment	1.6%
Wind	0.3%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 67
10. REPORTING YEAR (SAIDI) 62
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.0499
12. REPORTING YEAR (SAIFI) 1.4326
13. CORRECTIVE ACTION PLAN
Equipment issues have been corrected.

CIRCUIT #: 2

1. SUBSTATION NAME AND NUMBER Annville E92

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Welchburg Egypt Rd., Annville KY 40402

3. CIRCUIT NAME AND NUMBER Midsouth F4

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

Jackson County Industrial Park

5. TOTAL CIRCUIT LENGTH (MILES) 2.2

6. CUSTOMER COUNT FOR THIS CIRCUIT 24

7.. DATE OF LAST CIRCUIT TRIM (VM) 2015

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Scheduled	98.7%	93.5%
Unknown Cause	1.3%	6.5%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 103

10. REPORTING YEAR (SAIDI) 481

11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.467

12. REPORTING YEAR (SAIFI) 1.2917

13. CORRECTIVE ACTION PLAN None

CIRCUIT #: 3

1. SUBSTATION NAME AND NUMBER Annville E92
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Welchburg Egypt Rd., Annville KY 40402
3. CIRCUIT NAME AND NUMBER Tyner F1
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Jackson County feeding toward Tyner
5. TOTAL CIRCUIT LENGTH (MILES) 5.1
6. CUSTOMER COUNT FOR THIS CIRCUIT 43
7.. DATE OF LAST CIRCUIT TRIM (VM) 2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Lightning	0.4%	1.6%
Tree/Limb out of ROW	10.1%	7.9%
Unknown Cause	9.7%	30.2%
Wind	79.7%	60.3%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 90
10. REPORTING YEAR (SAIDI) 222
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.8692
12. REPORTING YEAR (SAIFI) 1.4651
13. CORRECTIVE ACTION PLAN None
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CIRCUIT #: 4

1. SUBSTATION NAME AND NUMBER Annville E92
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Welchburg Egypt Rd., Annville KY 40402
3. CIRCUIT NAME AND NUMBER Welchburg F5
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Jackson County feeding toward Welchburg
5. TOTAL CIRCUIT LENGTH (MILES) 6
6. CUSTOMER COUNT FOR THIS CIRCUIT 46
7.. DATE OF LAST CIRCUIT TRIM (VM) 2015
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI
Maintenance	8.8%
Tree/Limb out of ROW	29.4%
Wind	1.7%
Woodcutter	60.0%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 195
10. REPORTING YEAR (SAIDI) 248
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.1466
12. REPORTING YEAR (SAIFI) 2.0435
13. CORRECTIVE ACTION PLAN None
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CIRCUIT #: 5

1. SUBSTATION NAME AND NUMBER Beattyville E11
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
1251 HWY 52 East, Beattyville, KY 41311
3. CIRCUIT NAME AND NUMBER Heidelberg F3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
HWY 52, HWY 11 and across hills to Heidelberg
5. TOTAL CIRCUIT LENGTH (MILES) 67.8
6. CUSTOMER COUNT FOR THIS CIRCUIT 632
7.. DATE OF LAST CIRCUIT TRIM (VM) 2017
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	0.2%	0.4%
Equipment	5.7%	7.9%
Ice/Snow	7.2%	4.4%
Lightning	1.3%	1.4%
Scheduled	23.4%	28.2%
Squirrel	1.1%	3.2%
Tree/Limb in ROW	1.1%	1.4%
Tree/Limb out of ROW	37.8%	26.9%
Unknown Cause	18.1%	22.4%
Vehicles/Heavy Equipment	2.0%	1.5%
Vines/Kudzu	0.6%	1.2%
Wind	1.5%	1.1%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 194
10. REPORTING YEAR (SAIDI) 233
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.5563
12. REPORTING YEAR (SAIFI) 2.0886
13. CORRECTIVE ACTION PLAN None
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CIRCUIT #: 6

1. SUBSTATION NAME AND NUMBER Big Creek E102

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

100 North Hwy. 66, Manchester, KY 40962

3. CIRCUIT NAME AND NUMBER Bear Branch F2

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

East along HWY 421 in Big Creek Area

5. TOTAL CIRCUIT LENGTH (MILES) 7.4

6. CUSTOMER COUNT FOR THIS CIRCUIT 172

7.. DATE OF LAST CIRCUIT TRIM (VM) 2019

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	2.6%	4.9%
Maintenance	2.6%	2.0%
Other Utilities	1.4%	0.9%
Tree/Limb out of ROW	16.2%	7.8%
Unknown Cause	22.5%	38.5%
Wind	54.8%	45.9%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 153

10. REPORTING YEAR (SAIDI) 459

11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.1749

12. REPORTING YEAR (SAIFI) 2.5988

13. CORRECTIVE ACTION PLAN None

CIRCUIT #: 7

1. SUBSTATION NAME AND NUMBER Big Creek E102
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
100 North Hwy. 66, Manchester, KY 40962
3. CIRCUIT NAME AND NUMBER Flat Creek F3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
HWY 421 and Big Creek Road
5. TOTAL CIRCUIT LENGTH (MILES) 39.5
6. CUSTOMER COUNT FOR THIS CIRCUIT 466
7.. DATE OF LAST CIRCUIT TRIM (VM) 2019
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI
Equipment	6.8%
Lightning	0.7%
Maintenance	0.9%
Scheduled	0.7%
Squirrel	0.2%
Tree/Limb out of ROW	20.9%
Unknown Cause	20.1%
Vehicles/Heavy Equipment	0.1%
Vines/Kudzu	1.4%
Wind	48.3%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 313
10. REPORTING YEAR (SAIDI) 441
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.9034
12. REPORTING YEAR (SAIFI) 1.7747
13. CORRECTIVE ACTION PLAN None
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CIRCUIT #: 8

1. SUBSTATION NAME AND NUMBER Booneville E56
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Kash Brandenburg Cemetery Rd., Bonneville, KY 41314
3. CIRCUIT NAME AND NUMBER Levi F3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
HWY 3504, HWY 11 to Tincher Hill Rd and Silo Rd
5. TOTAL CIRCUIT LENGTH (MILES) 39
6. CUSTOMER COUNT FOR THIS CIRCUIT 395
7.. DATE OF LAST CIRCUIT TRIM (VM) 2016
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	2.3%	3.5%
Equipment	7.7%	5.8%
Ice/Snow	0.2%	0.2%
Lightning	6.9%	7.9%
Maintenance	4.2%	5.8%
Scheduled	6.2%	3.5%
Tree/Limb in ROW	2.8%	2.8%
Tree/Limb out of ROW	42.8%	53.2%
Unknown Cause	2.6%	4.2%
Wind	12.7%	5.6%
Woodcutter	11.7%	7.6%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 92
10. REPORTING YEAR (SAIDI) 100
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.0446
12. REPORTING YEAR (SAIFI) 1.0937
13. CORRECTIVE ACTION PLAN

Jackson Energy attempts to identify and remove trees that pose an
outage risk but are located outside of the Right-of-Way (ROW).

CIRCUIT #: 9

1. SUBSTATION NAME AND NUMBER Brodhead S82

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Hwy 1505, Brodhead, KY 40409

3. CIRCUIT NAME AND NUMBER Ottowa F3

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

Southwest of Brodhead including the Ottowa community

5. TOTAL CIRCUIT LENGTH (MILES) 50.3

6. CUSTOMER COUNT FOR THIS CIRCUIT 504

7.. DATE OF LAST CIRCUIT TRIM (VM) 2016

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	1.5%	1.3%
Equipment	64.2%	39.4%
Squirrel	0.1%	0.1%
Tree/Limb out of ROW	25.9%	52.8%
Unknown Cause	3.5%	2.6%
Vehicles/Heavy Equipment	3.0%	1.6%
Wind	1.9%	2.3%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 256

10. REPORTING YEAR (SAIDI) 330

11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.3687

12. REPORTING YEAR (SAIFI) 3.7897

13. CORRECTIVE ACTION PLAN

Equipment issue was located and corrected.

CIRCUIT #: 10

1. SUBSTATION NAME AND NUMBER Brodhead S82

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Hwy 1505, Brodhead, KY 40409

3. CIRCUIT NAME AND NUMBER Quail F4

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

South of Brodhead along HWY 70

5. TOTAL CIRCUIT LENGTH (MILES) 68.3

6. CUSTOMER COUNT FOR THIS CIRCUIT 688

7.. DATE OF LAST CIRCUIT TRIM (VM) 2015

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	0.04%	0.1%
Equipment	0.8%	0.7%
Lightning	0.5%	0.4%
Maintenance	0.2%	0.2%
Squirrel	1.1%	1.3%
Tree/Limb out of ROW	59.9%	49.2%
Unknown Cause	21.6%	23.3%
Vehicles/Heavy Equipment	0.3%	0.7%
Vines/Kudzu	0.1%	0.1%
Wind	15.5%	24.2%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 63

10. REPORTING YEAR (SAIDI) 434

11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.7104

12. REPORTING YEAR (SAIFI) 4.1134

13. CORRECTIVE ACTION PLAN

Jackson Energy attempts to identify and remove trees that pose an
outage risk but are located outside of the Right-of-Way (ROW).

CIRCUIT #: 11

1. SUBSTATION NAME AND NUMBER Campground S20
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
790 Smith Brewer Rd., London, KY 40744
3. CIRCUIT NAME AND NUMBER Campground F2
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
HWY 229 South of Hwy 1189, Wilderness Rd, Laurel River Church Rd
5. TOTAL CIRCUIT LENGTH (MILES) 64.3
6. CUSTOMER COUNT FOR THIS CIRCUIT 1034
7.. DATE OF LAST CIRCUIT TRIM (VM) 2019

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIFI
Animal / Bird	0.3%
Equipment	4.2%
Large Animal	0.1%
Lightning	1.4%
Maintenance	0.9%
Scheduled	4.6%
Squirrel	0.3%
Tree/Limb in ROW	14.1%
Tree/Limb out of ROW	8.4%
Unknown Cause	6.9%
Vehicles/Heavy Equipment	56.8%
Vines/Kudzu	0.9%
Wind	1.1%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 122
10. REPORTING YEAR (SAIDI) 107
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.2966
12. REPORTING YEAR (SAIFI) 1.7476
13. CORRECTIVE ACTION PLAN None

CIRCUIT #: 12

1. SUBSTATION NAME AND NUMBER Campground S20
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
790 Smith Brewer Rd., London, KY 40744
3. CIRCUIT NAME AND NUMBER Old State Rd F3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Parks Subdivision, Old State Rd, Happy Hollow Rd, Baker Rd
5. TOTAL CIRCUIT LENGTH (MILES) 19.4
6. CUSTOMER COUNT FOR THIS CIRCUIT 395
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2017
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIFI
Animal / Bird	0.2%
Equipment	0.8%
Lightning	0.3%
Maintenance	4.6%
Tree/Limb in ROW	5.4%
Tree/Limb out of ROW	0.3%
Unknown Cause	18.1%
Vehicles/Heavy Equipment	61.8%
Wind	8.5%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 87
10. REPORTING YEAR (SAIDI) 83
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.0277
12. REPORTING YEAR (SAIFI) 1.5823
13. CORRECTIVE ACTION PLAN None

CIRCUIT #: 13

1. SUBSTATION NAME AND NUMBER Conway S103

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

US HWY 25, Berea, KY 40403

3. CIRCUIT NAME AND NUMBER Flat Gap F2

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

North along US-25 toward Berea

5. TOTAL CIRCUIT LENGTH (MILES) 16.3

6. CUSTOMER COUNT FOR THIS CIRCUIT 268

7.. DATE OF LAST CIRCUIT TRIM (VM) 2014

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Equipment	0.2%	0.5%
Maintenance	0.5%	1.9%
Scheduled	10.0%	12.1%
Squirrel	22.2%	17.9%
Tree/Limb out of ROW	26.5%	11.1%
Unknown Cause	40.5%	56.5%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 94

10. REPORTING YEAR (SAIDI) 127

11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.6986

12. REPORTING YEAR (SAIFI) 0.7724

13. CORRECTIVE ACTION PLAN ROW Clearing scheduled for 2020.

CIRCUIT #: 14

1. SUBSTATION NAME AND NUMBER Eberle E49
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
1601 Mt. Zion Rd., East Bernstadt, KY 40729
3. CIRCUIT NAME AND NUMBER Letterbox F1
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Eberle Rd, KY 2003, Nichols Br. Rd,
5. TOTAL CIRCUIT LENGTH (MILES) 54.6
6. CUSTOMER COUNT FOR THIS CIRCUIT 463
7.. DATE OF LAST CIRCUIT TRIM (VM) 2014
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI
Animal / Bird	1.1%
Deterioration	5.5%
Equipment	0.1%
Flood	65.0%
Lightning	7.8%
Maintenance	0.1%
Scheduled	3.9%
Tree/Limb in ROW	1.6%
Tree/Limb out of ROW	7.7%
Unknown Cause	7.3%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 157
10. REPORTING YEAR (SAIDI) 213
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.4703
12. REPORTING YEAR (SAIFI) 0.946
13. CORRECTIVE ACTION PLAN ROW Clearing scheduled for 2020.
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CIRCUIT #: 15

1. SUBSTATION NAME AND NUMBER Fall Rock E16
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
5699 N. Highway 421 Manchester, KY 40962
3. CIRCUIT NAME AND NUMBER Foggertown F3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
US-421 toward Burning Springs and along KY-472
5. TOTAL CIRCUIT LENGTH (MILES) 117.4
6. CUSTOMER COUNT FOR THIS CIRCUIT 1159
7.. DATE OF LAST CIRCUIT TRIM (VM) 2016
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	1.5%	3.0%
Equipment	3.5%	4.2%
Lightning	0.4%	0.7%
Maintenance	1.4%	7.7%
Scheduled	5.0%	21.4%
Squirrel	2.7%	5.9%
Tree/Limb in ROW	0.3%	0.5%
Tree/Limb out of ROW	71.8%	35.7%
Unknown Cause	8.2%	15.3%
Vehicles/Heavy Equipment	2.9%	2.3%
Vines/Kudzu	0.3%	0.3%
Wind	2.0%	3.0%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 176
10. REPORTING YEAR (SAIDI) 271
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.157
12. REPORTING YEAR (SAIFI) 1.5134
13. CORRECTIVE ACTION PLAN

Jackson Energy attempts to identify and remove trees that pose an
outage risk but are located outside of the Right-of-Way (ROW).

CIRCUIT #: 16

1. SUBSTATION NAME AND NUMBER Fall Rock E16
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
5699 N. Highway 421 Manchester, KY 40962
3. CIRCUIT NAME AND NUMBER Oneida F1
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Along HWY 11 toward Oneida
5. TOTAL CIRCUIT LENGTH (MILES) 37
6. CUSTOMER COUNT FOR THIS CIRCUIT 374
7.. DATE OF LAST CIRCUIT TRIM (VM) 2015

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Equipment	25.6%	15.1%
Maintenance	1.5%	1.5%
Scheduled	6.3%	10.2%
Squirrel	1.1%	0.8%
Tree/Limb out of ROW	24.1%	19.1%
Unknown Cause	9.1%	6.2%
Vines/Kudzu	7.1%	15.7%
Wind	25.1%	31.4%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 215
10. REPORTING YEAR (SAIDI) 506
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.1109
12. REPORTING YEAR (SAIFI) 6.7112
13. CORRECTIVE ACTION PLAN
Equipment issues were located and corrected.

CIRCUIT #: 17

1. SUBSTATION NAME AND NUMBER Goose Rock E18
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
7731 S. Highway 421 Manchester, KY 40962
3. CIRCUIT NAME AND NUMBER Schoolhouse F4
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Area West toward Blue Hole and South along HWY-11
5. TOTAL CIRCUIT LENGTH (MILES) 35.5
6. CUSTOMER COUNT FOR THIS CIRCUIT 307
7.. DATE OF LAST CIRCUIT TRIM (VM) 2015
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	0.01%	0.05%
Bad Connection	0.03%	0.05%
Equipment	3.7%	5.2%
Fire	0.04%	0.1%
Flood	28.1%	14.4%
Lightning	2.5%	5.0%
Maintenance	0.3%	1.5%
Scheduled	8.8%	15.1%
Tree/Limb in ROW	7.4%	7.2%
Tree/Limb out of ROW	18.6%	18.7%
Unknown Cause	4.8%	10.3%
Vines/Kudzu	0.8%	1.5%
Wind	25.0%	21.0%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 658
10. REPORTING YEAR (SAIDI) 1852
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 3.1937
12. REPORTING YEAR (SAIFI) 6.9251
13. CORRECTIVE ACTION PLAN ROW Clearing scheduled for 2020.
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CIRCUIT #: 18

1. SUBSTATION NAME AND NUMBER Greenbriar E76

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

248 Needmore Hollow Rd., Manchester, 40962

3. CIRCUIT NAME AND NUMBER Fed Prison F1

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

Feeds to the Manchester Federal Correctional Institute

5. TOTAL CIRCUIT LENGTH (MILES) 0.4

6. CUSTOMER COUNT FOR THIS CIRCUIT 2

7.. DATE OF LAST CIRCUIT TRIM (VM) 2019

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Scheduled	100%	100%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 8

10. REPORTING YEAR (SAIDI) 42

11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.2

12. REPORTING YEAR (SAIFI) 1

13. CORRECTIVE ACTION PLAN None

CIRCUIT #: 19

1. SUBSTATION NAME AND NUMBER Greenbriar E76
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
248 Needmore Hollow Rd., Manchester, 40962
3. CIRCUIT NAME AND NUMBER Fox Hollow F4
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Area West of Greenbriar along Hwy 638 and 687 toward Urban
5. TOTAL CIRCUIT LENGTH (MILES) 57.5
6. CUSTOMER COUNT FOR THIS CIRCUIT 627
7. DATE OF LAST CIRCUIT TRIM (VM) 2014
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIFI
Animal / Bird	2.1%
Equipment	0.1%
Fire	0.1%
Flood	3.4%
Lightning	0.1%
Maintenance	4.3%
Mudslide	38.3%
Scheduled	7.8%
Squirrel	4.0%
Tree/Limb in ROW	3.4%
Tree/Limb out of ROW	25.5%
Unknown Cause	8.3%
Wind	2.8%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 360
10. REPORTING YEAR (SAIDI) 307
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.4402
12. REPORTING YEAR (SAIFI) 2.563
13. CORRECTIVE ACTION PLAN ROW Clearing scheduled for 2020.
Jackson Energy attempts to identify and remove trees that pose an
outage risk but are located outside of the Right-of-Way (ROW).

CIRCUIT #: 20

1. SUBSTATION NAME AND NUMBER Greenbriar E76

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

248 Needmore Hollow Rd., Manchester, 40962

3. CIRCUIT NAME AND NUMBER Island Creek F2

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

HWY 421, HWY 638, Bales Creek, Upper Rader, Sidell

5. TOTAL CIRCUIT LENGTH (MILES) 33.5

6. CUSTOMER COUNT FOR THIS CIRCUIT 598

7.. DATE OF LAST CIRCUIT TRIM (VM) 2019

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	1.2%	1.1%
Equipment	0.3%	0.2%
Fire	0.2%	0.1%
Mudslide	0.9%	1.0%
ROW Crew	16.6%	24.6%
Scheduled	11.1%	7.3%
Squirrel	1.5%	1.6%
Tree/Limb in ROW	0.7%	1.2%
Tree/Limb out of ROW	53.4%	50.3%
Unknown Cause	7.1%	5.9%
Vines/Kudzu	5.4%	5.7%
Wind	1.6%	0.8%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 139

10. REPORTING YEAR (SAIDI) 344

11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.5775

12. REPORTING YEAR (SAIFI) 4.0619

13. CORRECTIVE ACTION PLAN

Jackson Energy attempts to identify and remove trees that pose an
outage risk but are located outside of the Right-of-Way (ROW).

CIRCUIT #: 21

1. SUBSTATION NAME AND NUMBER Greenhall E93
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
449 Creech Rd., Tyner, KY 40486
3. CIRCUIT NAME AND NUMBER New Zion F3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Along HWY 587 to New Zion and Arvel
5. TOTAL CIRCUIT LENGTH (MILES) 79.2
6. CUSTOMER COUNT FOR THIS CIRCUIT 500
7.. DATE OF LAST CIRCUIT TRIM (VM) 2016

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	0.5%	0.7%
Equipment	8.2%	7.5%
Flood	0.4%	1.1%
Lightning	0.0%	0.1%
Maintenance	0.8%	2.5%
Mudslide	1.3%	0.6%
Scheduled	0.9%	1.2%
Squirrel	0.6%	1.2%
Tree/Limb in ROW	1.2%	1.2%
Tree/Limb out of ROW	72.5%	66.3%
Unknown Cause	5.2%	7.2%
Vehicles/Heavy Equipment	0.4%	0.1%
Wind	7.9%	10.4%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 179
10. REPORTING YEAR (SAIDI) 263
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.3463
12. REPORTING YEAR (SAIFI) 2.006

13. CORRECTIVE ACTION PLAN

Jackson Energy attempts to identify and remove trees that pose an
outage risk but are located outside of the Right-of-Way (ROW).

CIRCUIT #: 22

1. SUBSTATION NAME AND NUMBER Greenhall E93
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
449 Creech Rd., Tyner, KY 40486
3. CIRCUIT NAME AND NUMBER Trav Rest F5
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Area along KY-1071 and KY-30 toward Travellers Rest
5. TOTAL CIRCUIT LENGTH (MILES) 43.7
6. CUSTOMER COUNT FOR THIS CIRCUIT 278
7.. DATE OF LAST CIRCUIT TRIM (VM) 2015
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Equipment	14.5%	34.0%
Ice/Snow	3.9%	2.5%
Lightning	2.4%	1.8%
Scheduled	3.1%	7.1%
Tree/Limb out of ROW	26.2%	20.8%
Unknown Cause	37.1%	29.9%
Wind	12.7%	3.9%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 79
10. REPORTING YEAR (SAIDI) 168
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.8662
12. REPORTING YEAR (SAIFI) 1.5755
13. CORRECTIVE ACTION PLAN
Equipment issues were located and corrected.

CIRCUIT #: 23

1. SUBSTATION NAME AND NUMBER Greenhall E93

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

449 Creech Rd., Tyner, KY 40486

3. CIRCUIT NAME AND NUMBER Tyner F4

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

Along HWY 30 toward Tyner

5. TOTAL CIRCUIT LENGTH (MILES) 31.9

6. CUSTOMER COUNT FOR THIS CIRCUIT 250

7.. DATE OF LAST CIRCUIT TRIM (VM) 2016

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	0.6%	1.0%
Equipment	0.3%	0.2%
Lightning	2.6%	3.9%
Maintenance	5.1%	5.6%
Tree/Limb out of ROW	61.7%	41.1%
Unknown Cause	4.3%	7.1%
Vehicles/Heavy Equipment	25.5%	41.1%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 76

10. REPORTING YEAR (SAIDI) 218

11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.6663

12. REPORTING YEAR (SAIFI) 1.636

13. CORRECTIVE ACTION PLAN

Jackson Energy attempts to identify and remove trees that pose an
outage risk but are located outside of the Right-of-Way (ROW).

CIRCUIT #: 24

1. SUBSTATION NAME AND NUMBER Hargett E91
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
100 East Ky Power Lane, Irvine, KY 40336
3. CIRCUIT NAME AND NUMBER Dry Branch F2
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Spout Springs Rd, Winchester Rd, Dry Br. Rd, White Oak Rd
5. TOTAL CIRCUIT LENGTH (MILES) 30.9
6. CUSTOMER COUNT FOR THIS CIRCUIT 421
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2018

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

	SAIFI
Equipment	0.2%
Lightning	0.4%
Squirrel	46.9%
Tree/Limb out of ROW	46.5%
Unknown Cause	5.6%
Wind	0.4%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 233
10. REPORTING YEAR (SAIDI) 122
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.7169
12. REPORTING YEAR (SAIFI) 2.2494

13. CORRECTIVE ACTION PLAN

Animal guards are placed on equipment, when possible, after an animal caused outage occurs.

CIRCUIT #: 25

1. SUBSTATION NAME AND NUMBER Hargett E91
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
100 East Ky Power Lane, Irvine, KY 40336
3. CIRCUIT NAME AND NUMBER Lower Bend F3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Area Southwest of Hargett toward Fox and Witt Springs
5. TOTAL CIRCUIT LENGTH (MILES) 35.8
6. CUSTOMER COUNT FOR THIS CIRCUIT 288
7.. DATE OF LAST CIRCUIT TRIM (VM) 2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	3.8%	3.6%
Equipment	14.1%	12.8%
Flood	2.6%	1.2%
Lightning	5.6%	2.9%
Maintenance	0.9%	1.3%
Scheduled	7.0%	13.6%
Squirrel	3.2%	4.9%
Tree/Limb in ROW	22.1%	12.9%
Tree/Limb out of ROW	12.2%	5.6%
Unknown Cause	6.5%	6.2%
Wind	20.0%	32.8%
Woodcutter	2.0%	2.2%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 201
10. REPORTING YEAR (SAIDI) 453
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.7136
12. REPORTING YEAR (SAIFI) 3.6146
13. CORRECTIVE ACTION PLAN

Tree / Limb in the ROW outage numbers are due to one outage which was resolved.

CIRCUIT #: 26

1. SUBSTATION NAME AND NUMBER Hargett E91
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
100 East Ky Power Lane, Irvine, KY 40336
3. CIRCUIT NAME AND NUMBER Spout Springs F1
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Spout Springs Rd, Hudson Mill Road, State HWY 2001
5. TOTAL CIRCUIT LENGTH (MILES) 25.7
6. CUSTOMER COUNT FOR THIS CIRCUIT 248
7. DATE OF LAST CIRCUIT TRIM (VM) 2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	0.1%	0.3%
Equipment	0.4%	0.3%
Flood	7.6%	4.7%
Lightning	3.3%	7.2%
Maintenance	2.2%	5.8%
Scheduled	4.0%	3.9%
Squirrel	7.7%	8.3%
Tree/Limb out of ROW	44.7%	40.2%
Unknown Cause	20.0%	17.1%
Wind	1.5%	1.9%
Woodcutter	8.5%	10.5%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 124
10. REPORTING YEAR (SAIDI) 208
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.051
12. REPORTING YEAR (SAIFI) 1.4637
13. CORRECTIVE ACTION PLAN

Jackson Energy attempts to identify and remove trees that pose an
outage risk but are located outside of the Right-of-Way (ROW).

CIRCUIT #: 27

1. SUBSTATION NAME AND NUMBER Maplesville E77
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
91 Hanna Leigh Trail, London, KY 40741
3. CIRCUIT NAME AND NUMBER Slate Lick F3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
HWY 638 toward London
5. TOTAL CIRCUIT LENGTH (MILES) 14.5
6. CUSTOMER COUNT FOR THIS CIRCUIT 248
7.. DATE OF LAST CIRCUIT TRIM (VM) 2015
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	39.6%	29.4%
Maintenance	6.4%	30.7%
Scheduled	10.5%	4.3%
Squirrel	0.8%	0.6%
Tree/Limb out of ROW	5.6%	2.4%
Unknown Cause	32.0%	30.4%
Wind	5.1%	2.2%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 90
10. REPORTING YEAR (SAIDI) 186
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.2836
12. REPORTING YEAR (SAIFI) 3.4919
13. CORRECTIVE ACTION PLAN
Animal guards are placed on equipment, when possible, after an animal caused outage occurs.

CIRCUIT #: 28

1. SUBSTATION NAME AND NUMBER McKee E14
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
RT 290, McKee, KY 40447
3. CIRCUIT NAME AND NUMBER Bills Branch F1
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
North of McKee on KY-89 toward Sand Springs in Jackson County
5. TOTAL CIRCUIT LENGTH (MILES) 46.2
6. CUSTOMER COUNT FOR THIS CIRCUIT 473
7.. DATE OF LAST CIRCUIT TRIM (VM) 2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI
Animal / Bird	0.2%
Equipment	1.1%
Ice/Snow	0.3%
Lightning	0.04%
Maintenance	4.0%
Scheduled	32.6%
Squirrel	0.1%
Tree/Limb in ROW	0.3%
Tree/Limb out of ROW	38.1%
Unknown Cause	5.7%
Vines/Kudzu	8.0%
Wind	9.6%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 272
10. REPORTING YEAR (SAIDI) 314
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.2205
12. REPORTING YEAR (SAIFI) 3.3534
13. CORRECTIVE ACTION PLAN None
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CIRCUIT #: 29

1. SUBSTATION NAME AND NUMBER McKee E14
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
RT 290, McKee, KY 40447
3. CIRCUIT NAME AND NUMBER Indian Creek F3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Southwest along HWY 89 toward Livingston
5. TOTAL CIRCUIT LENGTH (MILES) 14
6. CUSTOMER COUNT FOR THIS CIRCUIT 116
7.. DATE OF LAST CIRCUIT TRIM (VM) 2015
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Scheduled	62.2%	37.8%
Tree/Limb out of ROW	26.3%	31.1%
Vehicles/Heavy Equipment	11.4%	31.1%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 390
10. REPORTING YEAR (SAIDI) 439
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.2205
12. REPORTING YEAR (SAIFI) 3.3534
13. CORRECTIVE ACTION PLAN None
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CIRCUIT #: 30

1. SUBSTATION NAME AND NUMBER Millers Creek E27

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

79 Beattyville, Rd., Irvine, KY 40472

3. CIRCUIT NAME AND NUMBER Cobb Hill F1

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

North toward Fitchburg along HWYs 975 and 1182

5. TOTAL CIRCUIT LENGTH (MILES) 78.3

6. CUSTOMER COUNT FOR THIS CIRCUIT 520

7.. DATE OF LAST CIRCUIT TRIM (VM) 2019

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI
Flood	0.6%
Large Animal	0.0%
Lightning	0.6%
Maintenance	1.1%
Other Utilities	0.2%
ROW Crew	1.2%
Scheduled	27.8%
Squirrel	1.0%
Tree/Limb in ROW	0.3%
Tree/Limb out of ROW	20.4%
Unknown Cause	1.9%
Vehicles/Heavy Equipment	1.2%
Wind	43.7%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 483

10. REPORTING YEAR (SAIDI) 571

11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 3.4225

12. REPORTING YEAR (SAIFI) 3.4077

13. CORRECTIVE ACTION PLAN None

CIRCUIT #: 31

1. SUBSTATION NAME AND NUMBER Millers Creek E27

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

79 Beattyville, Rd., Irvine, KY 40472

3. CIRCUIT NAME AND NUMBER Pryce F3

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

Barnes Mountain area South of Irvine

5. TOTAL CIRCUIT LENGTH (MILES) 57.9

6. CUSTOMER COUNT FOR THIS CIRCUIT 403

7.. DATE OF LAST CIRCUIT TRIM (VM) 2019

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIFI
Fire	0.1%
Flood	1.6%
Lightning	3.1%
Maintenance	47.1%
Scheduled	15.0%
Squirrel	8.0%
Tree/Limb in ROW	0.6%
Tree/Limb out of ROW	10.6%
Unknown Cause	9.2%
Vehicles/Heavy Equipment	0.2%
Vines/Kudzu	1.6%
Wind	2.9%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 224

10. REPORTING YEAR (SAIDI) 216

11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.6328

12. REPORTING YEAR (SAIFI) 1.9975

13. CORRECTIVE ACTION PLAN None

CIRCUIT #: 32

1. SUBSTATION NAME AND NUMBER Millers Creek E27
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
79 Beattyville, Rd., Irvine, KY 40472
3. CIRCUIT NAME AND NUMBER Youth Haven F2
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Along HWY 52 toward Beattyville, Old Landing, Bear Track
5. TOTAL CIRCUIT LENGTH (MILES) 52.3
6. CUSTOMER COUNT FOR THIS CIRCUIT 408
7.. DATE OF LAST CIRCUIT TRIM (VM) 2019
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIFI
Animal / Bird	0.4%
Flood	0.4%
Maintenance	0.1%
Scheduled	9.9%
Squirrel	6.0%
Tree/Limb in ROW	0.1%
Tree/Limb out of ROW	10.9%
Unknown Cause	5.4%
Vehicles/Heavy Equipment	58.0%
Wind	8.8%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 235
10. REPORTING YEAR (SAIDI) 192
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.8163
12. REPORTING YEAR (SAIFI) 1.8652
13. CORRECTIVE ACTION PLAN None
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CIRCUIT #: 33

1. SUBSTATION NAME AND NUMBER Oneida E67
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
11566 N. Highway 11, Manchester, KY 40962
3. CIRCUIT NAME AND NUMBER Big Bullskin F3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
HWY 1482 toward Brutus
5. TOTAL CIRCUIT LENGTH (MILES) 22.6
6. CUSTOMER COUNT FOR THIS CIRCUIT 218
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2019
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Customer Responsible	0.05%	0.05%
Equipment	7.6%	10.0%
Flood	0.6%	0.2%
Maintenance	0.9%	1.0%
Mudslide	1.8%	1.0%
Scheduled	34.0%	33.4%
Tree/Limb in ROW	1.1%	10.9%
Tree/Limb out of ROW	42.0%	33.4%
Wind	11.9%	10.1%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 378
10. REPORTING YEAR (SAIDI) 1223
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.8235
12. REPORTING YEAR (SAIFI) 9.1972

13. CORRECTIVE ACTION PLAN

Jackson Energy attempts to identify and remove trees that pose an
outage risk but are located outside of the Right-of-Way (ROW).

CIRCUIT #: 34

1. SUBSTATION NAME AND NUMBER Oneida E67
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
11566 N. Highway 11, Manchester, KY 40962
3. CIRCUIT NAME AND NUMBER Little Bullskin F2
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
HWY 1482 to Whoopflarea
5. TOTAL CIRCUIT LENGTH (MILES) 7.3
6. CUSTOMER COUNT FOR THIS CIRCUIT 52
7.. DATE OF LAST CIRCUIT TRIM (VM) 2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Equipment	0.8%	0.8%
Maintenance	2.0%	0.8%
Scheduled	49.4%	52.0%
Tree/Limb in ROW	46.6%	44.7%
Unknown Cause	1.2%	1.6%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 84
10. REPORTING YEAR (SAIDI) 243
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.8091
12. REPORTING YEAR (SAIFI) 2.3654
13. CORRECTIVE ACTION PLAN The tree/limb in ROW numbers result
from one outage that lasted 106 minutes.

CIRCUIT #: 35

1. SUBSTATION NAME AND NUMBER Oneida E67
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
11566 N. Highway 11, Manchester, KY 40962
3. CIRCUIT NAME AND NUMBER Road Run F1
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
HWY 11, Cane Creek Rd, Stone Gap Rd, Rock Branch Rd
5. TOTAL CIRCUIT LENGTH (MILES) 42.8
6. CUSTOMER COUNT FOR THIS CIRCUIT 284
7. DATE OF LAST CIRCUIT TRIM (VM) 2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Equipment	2.9%	6.4%
Flood	17.7%	16.2%
Lightning	3.4%	3.0%
Maintenance	0.3%	0.7%
Mudslide	1.7%	0.7%
Scheduled	9.3%	17.6%
Tree/Limb out of ROW	19.4%	15.5%
Unknown Cause	3.4%	5.8%
Vines/Kudzu	0.1%	0.1%
Wind	41.6%	33.7%
Woodcutter	0.3%	0.2%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 526
10. REPORTING YEAR (SAIDI) 885
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 3.2362
12. REPORTING YEAR (SAIFI) 5.0106
13. CORRECTIVE ACTION PLAN None
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CIRCUIT #: 36

1. SUBSTATION NAME AND NUMBER Oneida E67
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
11566 N. Highway 11, Manchester, KY 40962
3. CIRCUIT NAME AND NUMBER Spurlock F4
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
HWY 66 toward Bar Creek
5. TOTAL CIRCUIT LENGTH (MILES) 23.9
6. CUSTOMER COUNT FOR THIS CIRCUIT 238
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2017
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Equipment	0.5%	0.7%
Flood	31.7%	46.7%
Scheduled	1.5%	2.3%
Squirrel	2.6%	3.3%
Tree/Limb out of ROW	45.3%	28.3%
Unknown Cause	3.4%	4.9%
Vehicles/Heavy Equipment	2.3%	2.2%
Vines/Kudzu	3.5%	3.3%
Wind	9.3%	8.3%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 324
10. REPORTING YEAR (SAIDI) 646
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.9753
12. REPORTING YEAR (SAIFI) 4.2983
13. CORRECTIVE ACTION PLAN None

CIRCUIT #: 37

1. SUBSTATION NAME AND NUMBER Oneida E67
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
11566 N. Highway 11, Manchester, KY 40962
3. CIRCUIT NAME AND NUMBER Wildcat F5
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
HWY 11 toward Wildcat
5. TOTAL CIRCUIT LENGTH (MILES) 8.6
6. CUSTOMER COUNT FOR THIS CIRCUIT 89
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2015
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Equipment	7.3%	2.5%
Flood	52.6%	70.5%
Tree/Limb out of ROW	28.1%	10.7%
Vines/Kudzu	2.8%	2.5%
Wind	9.2%	13.9%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 112
10. REPORTING YEAR (SAIDI) 140
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.1127
12. REPORTING YEAR (SAIFI) 1.3708
13. CORRECTIVE ACTION PLAN None
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CIRCUIT #: 38

1. SUBSTATION NAME AND NUMBER Pine Grove 2 E86
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
165 Maple Grove Rd., London, KY 40741
3. CIRCUIT NAME AND NUMBER Hwy 363 F3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
HWY 363 toward Keavy
5. TOTAL CIRCUIT LENGTH (MILES) 27.2
6. CUSTOMER COUNT FOR THIS CIRCUIT 579
7.. DATE OF LAST CIRCUIT TRIM (VM) 2014
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	5.7%	3.3%
Balloon/Kite	0.3%	0.3%
Equipment	4.6%	3.2%
Lightning	0.2%	0.1%
Maintenance	1.2%	1.6%
Scheduled	10.1%	5.5%
Squirrel	0.2%	0.1%
Tree/Limb in ROW	16.3%	25.4%
Tree/Limb out of ROW	19.0%	25.4%
Unknown Cause	36.5%	33.6%
Vines/Kudzu	0.1%	0.1%
Wind	5.9%	1.4%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 168
10. REPORTING YEAR (SAIDI) 258
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.9393
12. REPORTING YEAR (SAIFI) 3.9344
13. CORRECTIVE ACTION PLAN Feeder clearing scheduled for 2020.
-
-

CIRCUIT #: 39

1. SUBSTATION NAME AND NUMBER Pine Grove 2 E86
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
165 Maple Grove Rd., London, KY 40741
3. CIRCUIT NAME AND NUMBER River Bend F2
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Area East of I-75 between Sublimity Springs Subdivision and Lily
5. TOTAL CIRCUIT LENGTH (MILES) 23.2
6. CUSTOMER COUNT FOR THIS CIRCUIT 669
7.. DATE OF LAST CIRCUIT TRIM (VM) 2014
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	0.3%	0.9%
Equipment	0.2%	0.4%
Lightning	1.8%	4.1%
Scheduled	3.3%	4.8%
Squirrel	1.0%	2.8%
Tree/Limb in ROW	6.8%	6.0%
Tree/Limb out of ROW	2.4%	4.5%
Unknown Cause	2.5%	6.5%
Vehicles/Heavy Equipment	6.3%	6.1%
Wind	75.5%	63.8%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 169
10. REPORTING YEAR (SAIDI) 313
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.4403
12. REPORTING YEAR (SAIFI) 1.577
13. CORRECTIVE ACTION PLAN Feeder clearing scheduled for 2020.
-
-

CIRCUIT #: 40

1. SUBSTATION NAME AND NUMBER Rice Station E26
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
75 Substation Rd., Irvine, KY 40336
3. CIRCUIT NAME AND NUMBER Sand Hill F1
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Toward North Irvine North of HWY 1457
5. TOTAL CIRCUIT LENGTH (MILES) 38.8
6. CUSTOMER COUNT FOR THIS CIRCUIT 619
7.. DATE OF LAST CIRCUIT TRIM (VM) 2017
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIFI
Animal / Bird	0.1%
Equipment	1.1%
Flood	1.5%
Lightning	2.8%
Maintenance	22.8%
Scheduled	2.8%
Squirrel	2.2%
Tree/Limb out of ROW	51.3%
Unknown Cause	13.6%
Vines/Kudzu	1.5%
Wind	0.2%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 237
10. REPORTING YEAR (SAIDI) 224
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.0457
12. REPORTING YEAR (SAIFI) 2.2278
13. CORRECTIVE ACTION PLAN

Jackson Energy attempts to identify and remove trees that pose an
outage risk but are located outside of the Right-of-Way (ROW).

CIRCUIT #: 41

1. SUBSTATION NAME AND NUMBER Rice Station E26

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

75 Substation Rd., Irvine, KY 40336

3. CIRCUIT NAME AND NUMBER Winston F3

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

Winston, HWY 191, HWY 499 to Crooked Creek Road

5. TOTAL CIRCUIT LENGTH (MILES) 67.8

6. CUSTOMER COUNT FOR THIS CIRCUIT 780

7.. DATE OF LAST CIRCUIT TRIM (VM) 2017

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	2.2%	3.5%
Equipment	0.2%	0.1%
Lightning	0.6%	1.1%
Maintenance	0.3%	1.2%
Scheduled	72.1%	57.6%
Squirrel	4.7%	8.1%
Tree/Limb in ROW	2.3%	3.0%
Tree/Limb out of ROW	3.2%	2.3%
Unknown Cause	8.4%	14.7%
Vines/Kudzu	0.4%	0.6%
Wind	5.6%	7.7%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 191

10. REPORTING YEAR (SAIDI) 306

11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.351

12. REPORTING YEAR (SAIFI) 1.9231

13. CORRECTIVE ACTION PLAN None

CIRCUIT #: 42

1. SUBSTATION NAME AND NUMBER Sand Gap S92

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Gravel Lick Rd., McKee, KY 40447

3. CIRCUIT NAME AND NUMBER CloverBottom F2

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
HWY 421, Clover Bottom, Clover Bottom Rd, Asbill Rd

5. TOTAL CIRCUIT LENGTH (MILES) 71.5

6. CUSTOMER COUNT FOR THIS CIRCUIT 637

7.. DATE OF LAST CIRCUIT TRIM (VM) 2015

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	0.5%	0.6%
Equipment	3.7%	3.2%
Maintenance	0.5%	2.8%
Squirrel	0.7%	1.4%
Tree/Limb in ROW	6.9%	11.1%
Tree/Limb out of ROW	83.2%	75.5%
Unknown Cause	1.5%	2.8%
Wind	3.0%	2.5%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 172

10. REPORTING YEAR (SAIDI) 192

11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.364

12. REPORTING YEAR (SAIFI) 1.3799

13. CORRECTIVE ACTION PLAN Feeder ROW clearing scheduled for 2020.

CIRCUIT #: 43

1. SUBSTATION NAME AND NUMBER Sand Gap S92
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Gravel Lick Rd., McKee, KY 40447
3. CIRCUIT NAME AND NUMBER Deer Stable F3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Gravel Lick Rd, Upper Dry Fk Rd, Lower Dry Fk Rd, HWY 421 toward McKee
5. TOTAL CIRCUIT LENGTH (MILES) 33.8
6. CUSTOMER COUNT FOR THIS CIRCUIT 395
7. DATE OF LAST CIRCUIT TRIM (VM) 2014
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	0.1%	0.2%
Equipment	15.4%	36.9%
Flood	0.9%	0.7%
Lightning	1.5%	1.7%
Maintenance	0.4%	0.6%
Squirrel	1.5%	2.2%
Tree/Limb in ROW	1.4%	0.7%
Tree/Limb out of ROW	28.7%	10.1%
Unknown Cause	30.7%	39.2%
Vehicles/Heavy Equipment	0.1%	0.1%
Wind	19.4%	7.6%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 127
10. REPORTING YEAR (SAIDI) 275
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.2328
12. REPORTING YEAR (SAIFI) 2.7342
13. CORRECTIVE ACTION PLAN Equipment issue was located and corrected.
Feeder ROW clearing scheduled for 2020.

CIRCUIT #: 44

1. SUBSTATION NAME AND NUMBER South Fork E12
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Griffith Cemetery Rd., Island City, KY 41338
3. CIRCUIT NAME AND NUMBER Bear Run F1
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Notheast toward Eversole, Lerose and Tallega
5. TOTAL CIRCUIT LENGTH (MILES) 61.2
6. CUSTOMER COUNT FOR THIS CIRCUIT 375
7.. DATE OF LAST CIRCUIT TRIM (VM) 2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Bad Connection	1.3%	4.1%
Equipment	6.1%	2.0%
Lightning	0.8%	1.1%
Scheduled	1.2%	2.2%
Squirrel	5.4%	5.0%
Tree/Limb out of ROW	28.6%	21.3%
Unknown Cause	8.8%	9.5%
Vehicles/Heavy Equipment	3.9%	2.3%
Wind	42.3%	51.6%
Woodcutter	1.5%	0.8%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 343
10. REPORTING YEAR (SAIDI) 364
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.8245
12. REPORTING YEAR (SAIFI) 3.5227

13. CORRECTIVE ACTION PLAN

Jackson Energy attempts to identify and remove trees that pose an
outage risk but are located outside of the Right-of-Way (ROW).

CIRCUIT #: 45

1. SUBSTATION NAME AND NUMBER South Fork E12
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Griffith Cemetery Rd., Island City, KY 41338
3. CIRCUIT NAME AND NUMBER Booneville F5
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
HWY 11 toward Sag Hollow Golf Course
5. TOTAL CIRCUIT LENGTH (MILES) 5.5
6. CUSTOMER COUNT FOR THIS CIRCUIT 81
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	0.5%	0.8%
Equipment	1.3%	0.8%
Maintenance	13.6%	11.6%
Tree/Limb out of ROW	46.3%	46.6%
Wind	38.3%	40.1%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 203
10. REPORTING YEAR (SAIDI) 978
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.6152
12. REPORTING YEAR (SAIFI) 7.3333
13. CORRECTIVE ACTION PLAN

Jackson Energy attempts to identify and remove trees that pose an
outage risk but are located outside of the Right-of-Way (ROW).

CIRCUIT #: 46

1. SUBSTATION NAME AND NUMBER South Fork E12
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Griffith Cemetery Rd., Island City, KY 41338
3. CIRCUIT NAME AND NUMBER Walnut Grove F3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Sturgeon, HWY 1350, HWY 11
5. TOTAL CIRCUIT LENGTH (MILES) 43.3
6. CUSTOMER COUNT FOR THIS CIRCUIT 258
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Flood	0.6%	1.5%
Tree/Limb out of ROW	34.9%	34.7%
Unknown Cause	4.1%	13.2%
Wind	60.4%	50.7%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 398
10. REPORTING YEAR (SAIDI) 540
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.6019
12. REPORTING YEAR (SAIFI) 6.1048
13. CORRECTIVE ACTION PLAN

Jackson Energy attempts to identify and remove trees that pose an
outage risk but are located outside of the Right-of-Way (ROW).

CIRCUIT #: 47

1. SUBSTATION NAME AND NUMBER South Fork E12
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Griffith Cemetery Rd., Island City, KY 41338
3. CIRCUIT NAME AND NUMBER Rice Town F2
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Area East of HWY 11 toward Arnett
5. TOTAL CIRCUIT LENGTH (MILES) 49.5
6. CUSTOMER COUNT FOR THIS CIRCUIT 248
7.. DATE OF LAST CIRCUIT TRIM (VM) 2014
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI
Equipment	2.0%
Flood	0.4%
Lightning	1.1%
Scheduled	0.2%
Tree/Limb in ROW	3.2%
Tree/Limb out of ROW	49.7%
Unknown Cause	3.1%
Vines/Kudzu	0.04%
Wind	40.4%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 843
10. REPORTING YEAR (SAIDI) 1893
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.8293
12. REPORTING YEAR (SAIFI) 2.4264
13. CORRECTIVE ACTION PLAN Feeder ROW clearing scheduled for 2020.
Jackson Energy attempts to identify and remove trees that pose an
outage risk but are located outside of the Right-of-Way (ROW).

CIRCUIT #: 48

1. SUBSTATION NAME AND NUMBER Three Links S84
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
52 Climax Rd., Mount Vernon, KY 40456
3. CIRCUIT NAME AND NUMBER Disputanta F3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Southwest along HWY 1912
5. TOTAL CIRCUIT LENGTH (MILES) 50.5
6. CUSTOMER COUNT FOR THIS CIRCUIT 378
7.. DATE OF LAST CIRCUIT TRIM (VM) 2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	0.6%	1.2%
Equipment	1.3%	1.2%
Flood	21.0%	27.5%
Lightning	0.4%	0.7%
Maintenance	1.4%	4.0%
Scheduled	7.9%	10.0%
Squirrel	0.3%	0.2%
Tree/Limb out of ROW	51.1%	39.9%
Unknown Cause	1.5%	2.8%
Wind	14.5%	12.5%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 407
10. REPORTING YEAR (SAIDI) 504
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 3.2133
12. REPORTING YEAR (SAIFI) 3.6508
13. CORRECTIVE ACTION PLAN

Jackson Energy attempts to identify and remove trees that pose an outage risk but are located outside of the Right-of-Way (ROW).

CIRCUIT #: 49

1. SUBSTATION NAME AND NUMBER Three Links S84
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
52 Climax Rd., Mount Vernon, KY 40456
3. CIRCUIT NAME AND NUMBER Pine Grove F1
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
HWY 1955, Cave Springs Rd., HWY 421, Morrill-Kerby Knob Rd.
5. TOTAL CIRCUIT LENGTH (MILES) 51.7
6. CUSTOMER COUNT FOR THIS CIRCUIT 478
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2014
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIFI
Animal / Bird	0.2%
Equipment	0.2%
Fire	0.2%
Lightning	0.2%
Maintenance	5.7%
Scheduled	14.3%
Squirrel	3.3%
Tree/Limb out of ROW	15.9%
Unknown Cause	16.8%
Wind	3.7%
Woodcutter	39.5%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 210
10. REPORTING YEAR (SAIDI) 203
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.2454
12. REPORTING YEAR (SAIFI) 2.5711
13. CORRECTIVE ACTION PLAN Feeder ROW clearing scheduled for 2020.
-
-

CIRCUIT #: 50

1. SUBSTATION NAME AND NUMBER Tyner E13
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Tyner Tower Rd., Tyner, KY 40486
3. CIRCUIT NAME AND NUMBER Egypt F3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Along HWY 421 to Egypt and stops at HWY 1350, Robinson Creek Rd
5. TOTAL CIRCUIT LENGTH (MILES) 70.2
6. CUSTOMER COUNT FOR THIS CIRCUIT 686
7.. DATE OF LAST CIRCUIT TRIM (VM) 2016
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	0.1%	0.1%
Equipment	24.9%	29.1%
Maintenance	6.3%	35.9%
Scheduled	3.5%	1.7%
Squirrel	0.01%	0.03%
Tree/Limb out of ROW	7.5%	4.9%
Unknown Cause	15.0%	14.5%
Vandals	0.02%	0.03%
Wind	42.6%	13.8%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 203
10. REPORTING YEAR (SAIDI) 429
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.7191
12. REPORTING YEAR (SAIFI) 5.7347
13. CORRECTIVE ACTION PLAN Equipment issues were located and corrected.

CIRCUIT #: 51

1. SUBSTATION NAME AND NUMBER West London 1 E48
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
436 West Laurel Rd., London, KY 40741
3. CIRCUIT NAME AND NUMBER Jerrys Rest. F1
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Area along Parker Road West of I-75
5. TOTAL CIRCUIT LENGTH (MILES) 3.4
6. CUSTOMER COUNT FOR THIS CIRCUIT 81
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2015
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIFI
Equipment	27.4%
Maintenance	24.7%
Scheduled	24.7%
Tree/Limb out of ROW	5.5%
Unknown Cause	12.3%
Vines/Kudzu	5.5%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 70
10. REPORTING YEAR (SAIDI) 64
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.7691
12. REPORTING YEAR (SAIFI) 0.9012
13. CORRECTIVE ACTION PLAN Feeder ROW clearing scheduled for 2020.
Equipment issues were located and corrected.

CIRCUIT #: 52

1. SUBSTATION NAME AND NUMBER West London 1 E48
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
436 West Laurel Rd., London, KY 40741
3. CIRCUIT NAME AND NUMBER Parker Rd F5
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Parker Rd
5. TOTAL CIRCUIT LENGTH (MILES) 4.1
6. CUSTOMER COUNT FOR THIS CIRCUIT 265
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2017
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE
NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	14.4%	33.7%
Lightning	0.4%	1.1%
Maintenance	1.2%	2.2%
Scheduled	80.7%	59.8%
Unknown Cause	3.3%	3.3%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 23
10. REPORTING YEAR (SAIDI) 41
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.3396
12. REPORTING YEAR (SAIFI) 0.3472
13. CORRECTIVE ACTION PLAN

Animal guards are placed on equipment, when possible, after an animal caused outage occurs.

CIRCUIT #: 53

1. SUBSTATION NAME AND NUMBER West London 2 E48
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
436 West Laurel Rd., London, KY 40741
3. CIRCUIT NAME AND NUMBER Cold Hill F4
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Area along HWY 192 Southwest of London
5. TOTAL CIRCUIT LENGTH (MILES) 22.4
6. CUSTOMER COUNT FOR THIS CIRCUIT 588
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2014
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

	SAIDI	SAIFI
Animal / Bird	9.0%	9.2%
Equipment	4.7%	3.7%
Lightning	11.9%	13.4%
Scheduled	15.0%	13.9%
Squirrel	2.1%	5.2%
Tree/Limb out of ROW	15.3%	5.0%
Unknown Cause	9.0%	13.4%
Wind	32.8%	36.2%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 41
10. REPORTING YEAR (SAIDI) 59
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.4602
12. REPORTING YEAR (SAIFI) 0.648
13. CORRECTIVE ACTION PLAN Feeder ROW clearing scheduled for 2020.
-
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INCLUDE CURRENT VEGETATION MANAGEMENT PLAN

Additional page may be attached as needed,

The vegetation management plan is attached.

SECTION 7: UTILITY COMMENTS

Elk Mountian substation is a new substation.

Goose Rock substation was removed from service in 2020.

Load from Goose Rock substation has been transferred to Elk Mountian and Big Creek substations.

Jackson Energy Cooperative
Engineering & Operations Department
115 Jackson Energy Lane
McKee, KY 40447
606-364-1000

VEGETATION MANAGEMENT PLAN
GUIDELINES, METHODS
AND PROCEDURES

Revised: August 2019

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Section 1.0 Definitions

- A. "JEC" shall mean Jackson Energy Cooperative.
- B. "Contractor" shall mean the successful Bidder to whom a Contract is awarded.
- C. "Work" shall refer to everything agreed to be done and furnished by the Contractor including all supervision, supplies, labor, transportation and equipment together with all responsibilities and obligations imposed by the Contract Documents.
- D. "Equipment" shall mean the trucks, trailers, tools, saws, and other apparatus which are owned and operated by the Contractor and which are required to be maintained by the Contractor for the performance of the Contract in accordance with the Specifications.
- E. "Specifications" shall mean all specifications pertaining to the Work to be performed.
- F. "Contract" shall mean the fully executed document which binds the interested parties in an agreement to fulfill all terms, conditions, and specifications.
- G. "Invitation for Bids" shall be the means by which JEC solicits bids from Pre-qualified Contractors for Work which JEC may from time to time deem necessary to have performed.
- H. "Install", "Furnish", "Provide", or words of like import shall mean the Contractor shall install, furnish, or provide, and similarly the words "Approved", "Authorized", "Required", "Satisfactory", "Acceptable", or words of like import shall mean, as applicable, approved by, authorized by, required by, satisfactory to, or acceptable to JEC, unless otherwise expressly stated.
- I. "Prequalified Contractor" shall mean a contractor who is determined by JEC to be eligible to bid on the Work, subject to any of JEC's conditions, but such status shall not imply or infer compliance with any of the requirements of the Contract, Specifications or other Contract Documents.
- J. "Tree" shall mean any woody vegetation with a DBH of 4 inches or greater.

- K. "Brush" shall mean any vegetation with a DBH of less than 4 inches.

Section 2.0 Bidder's Qualifications

- 2.1 Bids will be accepted only from well established and qualified licensed contractors, trained and experienced in the clearing of power line rights of way and tree trimming that have been approved by JEC as a Pre-qualified Contractor. No bid will be considered from any Contractor unless they are known to be skilled and were previously engaged in work of a character and scope consistent with these bid specifications.
- 2.2 Bidders must show that their equipment and facilities are sufficient and their workload so arranged as to meet the schedules called for by the Contract without the use of subcontractors. In order to aid JEC in determining the responsibility of any Bidder, the Bidder shall furnish evidence, satisfactory to JEC, of the Bidder's qualifications, experience and familiarity with work of the character specified and his or her financial ability to properly prosecute the proposed work to completion.
- 2.3 Unless previously approved, each Bidder shall submit to JEC a Contractor's Prequalification Application Form, available at JEC's office, and must be subsequently approved by JEC as a Pre-qualified Contractor in order to receive a formal Invitation to Bid. JEC will only accept bids from Bidders who have been approved by JEC as a Pre-qualified Contractor.

Section 3.0 Instructions to Bidders

- 3.1 Bids that are sent by U.S. Postal Service or private carrier shall be clearly marked "**BID ENVELOPE ENCLOSED**". The bid shall be sealed in a separate envelope and shall have the following information shown on the outside of the envelope:

BID FOR: Power Line Right of Way Clearance and Tree Trimming

BID DUE: 2:00 p.m. October 31st, 2019

OWNER: Jackson Energy Cooperative

BIDDER: _____

Envelope must be addressed and submitted to:

Jackson Energy Cooperative
ATTN: Mr. Jim Ball
115 Jackson Energy Ln.
McKee, Kentucky 40447

Any bid not conforming to these requirements will not be considered.

- 3.2 Before submitting a bid, each Bidder must (a) examine the Contract Documents thoroughly, (b) visit the system to become familiar with local conditions that may in any manner affect cost, progress, or performance of the work, (c) have knowledge of all federal, state and local laws, ordinances, rules and regulations affecting performance of the work, and (d) carefully correlate the Bidder's observations with the requirements of the Contract Documents.
- 3.3 Each bid shall be carefully prepared in accordance with the JEC Specifications referenced in the Contract Documents.
- 3.4 Each bid shall be signed by a representative of the Bidder who is authorized to make contractual obligations for the Bidder and shall give the Bidder's full business address. Bids by partnerships shall be signed with the partnership name followed by the signature and designation of one of the partners or other authorized representative.
- 3.5 Bids by a corporation shall be signed in the name of the corporation, followed by the signature and designation of the president, secretary, or other person authorized to bind the corporation. The name of all persons signing shall also be typed or printed.
- 3.6 Sealed bids will be opened in private the day the bids are due. Contractors will be notified of any awarded work after Board approval.
- 3.7 JEC reserves the right to reject any and all bids, waive any and all technicalities therein, disregard all nonconforming or conditional bids, and evaluate and award bids on other than a low bid basis. By submission of a bid, Bidder thereby agrees to these stipulations and will not challenge JEC's decisions.
- 3.8 JEC may conduct such investigations as it deems prudent to establish the responsibility, qualifications, and financial ability of the Bidders. JEC's final selection of the best overall bid submitted, as determined solely by JEC, shall be based upon factors such as: financial stability of bidder; personnel experience and training; surveys of current and previous employers and previous work history with JEC; overall quality of equipment and organization; ability to adequately

serve JEC with full coverage, customer responsiveness and complaint processing; employee safety training, safety compliance and procedures, including drug-free workforce initiatives, etc.

- 3.9 If the Contract is awarded, JEC will give the successful Bidder due notice of award after its Board of Directors meeting on or after **December 4, 2019**. Work is expected to commence on this Contract **on or after January 1, 2020**, unless otherwise approved at JEC's option.
- 3.10 JEC may elect during the term of this Contract to award one (1) or more additional contracts for rights of way clearance and tree trimming via alternative contractual arrangements such as hourly rates, unit cutting, zone clearing, or lump sum cost for circuit trimming. Nothing contained herein shall be construed as prohibiting JEC from awarding such additional contracts as it deems necessary for the continued safe operation and maintenance of its electric distribution system.

Section 4.0 Introduction: Guidelines and Evaluation Methods

In order to maintain line clearance for public safety and electrical reliability, Jackson Energy Cooperative regularly undertakes tree pruning and herbicide activities. These activities are required in order to be compliant with NESC, as well as Kentucky Revised Statute, and guidelines promulgated by OSHA. This guide details the methods and guidelines which JEC uses to accomplish that goal.

Goal:

The goal of our right-of-way clearance program is to maintain line clearance for public safety and electric reliability.

Strategy:

Our strategy for clearing and maintaining line clearance is to arrange the entire system in operable units, defined by individual circuits or substations, and to operate line clearance activities on those units in a regular and scheduled manner.

Tactics:

The tactics involved are detailed in the following Guidelines. At the development stage of Jackson Energy's vegetation management plan, circuits were prioritized on the basis of last available date of trimming, and vegetation conditions found by onsite circuit inspections which occur incidentally throughout the year as a part of normal activities to determine circuit condition. Reliability, measured by the number of tree related outages expressed on a per circuit mile basis was further used to identify circuits which should be cleared the soonest, with the highest going first and so on. Circuit outages due to trees are regularly reviewed to

determine if any adjustment of the trimming cycle to address changing conditions on the circuit is warranted. Onsite inspection further allows adjustment of these time frames should extraordinary circumstances warrant such an adjustment. Examples of such circumstances are: insect infestation damage (Southern Pine Beetle, etc), heavy forest fire damage which will result in tree losses throughout the circuit, or weather related instances. The effectiveness of the plan is evaluated by the reduction of the frequency of tree related outages, and the duration of tree related outages on the treated circuit. This is monitored by the contribution of tree related outages to both customer and system average interruption indices (SAIDI, SAIFI, and CAIDI). Reports generated by the dispatch Outage Management System (OMS) identify these circuits and the nature and frequency of outages. These reports are given daily, as well as accumulated monthly and annually to better define units needing attention.

Jackson Energy Cooperative conducts clearing activity in each circuit feeder to one full circuit clearing, encompassing floor, side and shade tree trimming each six years. Circuits and new construction units are then scheduled for chemical treatment to reduce floor vegetation within two years of full circuit clearing.

Section 5.0 General Requirements

- 5.1 Bidders bidding on herbicide treatment work shall be trained and licensed in the handling and use of chemicals and sprays, and shall furnish evidence of the same, for foliage, basal, and tree stump applications. Evidence shall include, without being limited to, the Bidder's Commercial Applicator's License Number certified in Category 6 - Right of Way from the Kentucky Department of Agriculture.
- 5.2 If a Contractor utilizes a Hispanic work force they shall have a general foreman capable of speaking Spanish. At least one member of every crew, ideally the working foreman shall be capable of speaking English in order to answer any questions a landowner or a representative of JEC might have.
- 5.3 A contract crew shall consist of all necessary personnel and all necessary tools and equipment as outlined in the Contractor's Pre-qualification Application Form, to safely and efficiently complete the work. JEC reserves the right to do any Work covered within this Contract by its own forces, to have such Work performed by other contractors, to cause such Work to be completed by other means, or to defer any Work to a future date.
- 5.4 Since Contractor(s) employees come in contact with JEC customers, they shall be completely dressed in suitable clothing which shall be clean at the beginning of each day. Identification badges or other forms of identification which displays the Company's name, contact information, position, etc. is required and must be shown to the customer upon request.
- 5.5 All motor trucks and other vehicles provided by the Contractor to perform the

Work shall bear the Contractor's number and shall be well marked and identified with company insignia or name designating the vehicles as property of the Contractor.

- 5.6 Contractor shall observe all generally recognized safety rules (including without limitation the provisions of the National Electrical Safety Code and ANSI Z133.1 - 2000 or latest edition thereof), regulations, and methods to prevent injury to all employees and other persons or damage to property of JEC or the public arising from its operations. Contractor shall observe all laws and regulations applicable to its operations including without limitation OSHA requirements, Kentucky Department of Transportation requirements, and Kentucky Department of Agriculture requirements.
- 5.7 Contractor shall secure from JEC information as to the nature of the electric circuits involved in all cases prior to commencement of Work in each area. Contractor acknowledges that JEC's electric circuits are to continue in normal operation during this Work, and Contractor shall provide and use all protective equipment necessary for the protection of its employees and to guard against interfering with the normal operation of these electric circuits. If a line is interrupted or damaged caused by work from this operation the Contractor will be responsible for cost of repairing and restoring that line.
- 5.8 Contractor shall immediately notify JEC of any irregular situations observed on JEC's system, including, without limitation, equipment or facility malfunctions, actual or potential safety problems, loose or sagging guy wires, damaged conductors, leaking transformers, damaged or defective poles, and any other seemingly unusual circumstance encountered by the Contractor.
- 5.9 If, during the term of the Contract, additional hourly crews or workers are needed to perform right of way clearing, tree trimming, chemical applications, JEC will first request such crews or workers from the Contractor then working for JEC. Should the Contractor fail to furnish additional crews or workers upon thirty (30) days written notice, JEC shall have the right to obtain additional crews or workers from other resources.
- 5.10 Contractor shall promote a drug and alcohol free working environment.
- 5.11 Contractor(s) shall not perform or solicit any type of private tree trimming work on customer's property while actively engaged in performing work for JEC under this contract until all work on the circuit is completed.

Section 6.0 Work

- 6.1 Contractor shall perform all Work to the complete satisfaction of JEC and in accordance with all municipal, county, state and other local laws, ordinances, and

regulations applicable to Work of this character and nature. All Work performed by the Contractor is subject to inspection and approval by JEC. Any Work not meeting the minimums as set forth in these Specifications, or generally accepted line clearance standards, or Work which has been falsely represented in any fashion by Contractor shall be redone by the Contractor at no (zero) cost to JEC. Failure by JEC to inspect Contractor's Work shall in no way relieve the Contractor from any obligations, liabilities, or responsibilities in connection with the Contract.

- 6.2 Contractor agrees to provide adequate notice and if possible, obtain consent, for the necessary work from the property owner or public authorities having ownership or control over each tree to be trimmed or removed and/or all property to be cleared or sprayed. Contractor shall discuss with the property owner the type of work to be performed, identifying any and all trees that need to be trimmed or removed, the disposal of brush, any areas that need to be sprayed, and the proposed route of all vehicles and equipment traveling over the owner's property. When property owners cannot be contacted, door hangers shall be left to inform them that Contractor was present to trim trees. Hangers shall contain information as Company Name, Phone Number, etc. Whenever permission to do any work cannot be obtained, JEC shall be informed of the situation.
- 6.3 Contractor shall certify that complaints of any nature received from property owners or public authorities resulting from this Work will receive immediate attention and that all efforts will be made to effect a prompt adjustment. If any damage is done to the property of others by Contractor's workforce, Contractor shall repair and restore at its sole expense any such property and correct any damage inflicted thereto, all to the complete satisfaction of the owner(s) of the injured property. All complaints, and any action taken by Contractor in connection with such complaints, shall be reported to JEC.
- 6.4 Contractor shall secure all permits and licenses necessary for the Work to be performed and pay all charges and fees required for such permits and licenses.
- 6.5 Contractor(s) shall provide sufficient crews to complete the work in the specified time period. However, JEC expects that after work has begun on specified circuits, the Contractor's operation will progress on a continued basis with necessary staffing levels to complete the required circuit miles by the end of the term of the contract, which is **December 31, 2020**. Crew size, crew structure, crew equipment, and the need for any additional crews under this contract will be at the Contractor's sole discretion. Any work not completed by the specified date must still be completed by the Contractor. The inability to finish the work on time will also be considered and noted before any future bid work is granted to that Contractor.

Section 7.0 Notification/Authorization to Trim or Remove Trees

- 7.1 The Contractor shall provide the property owner(s) with notification of intent to conduct the required right-of-way clearance and cut stump herbicide application work. This contact shall precede any work done on any property. The work will then be scheduled for each crew. Any line clearance work done without proper notification must have specific approval by the authorized Jackson Energy representative. Jackson Energy must have **10 business days** notice requesting notification calls be sent by our automated machine before any contact takes place.
- 7.2 Verbal notification of the property owner for routine line clearance work is sufficient. If the property owner is not home, a notification card may be left on the door. Notification cards shall not be placed in any U.S. mailboxes. Notification cards shall only be used where the owner is likely to be present on site on a regular basis. Absentee owners may be notified by mail or by phone.
- 7.3 In the case of the industrial, municipal, county, state, or large private estate type of properties, the caretakers or other designated individual in the employ of the owners who is responsible for the trees or brush to be cut or trimmed is considered to represent the interest of the owner. Notification of such caretakers or grounds maintenance supervisors is sufficient.
- 7.4 For both bid and T&M crews, the contractor shall maintain a written daily log of all property owner notification and/or refusals by personal contact, letter, phone call, and notification card. The log shall include a record of the date of initial contact, party contacted, address, any agreements entered or understanding reached, and any follow-up conducted. Contractor shall make an attempt to have landowner/member sign log sheet. Contractor shall also keep appropriate maps marked to reflect current **daily** progress for all projects/substation circuits.
- 7.5 If landowner refuses access, Contractor shall notify authorized Jackson Energy representative immediately.

Section 8.0 Right of Way Clearing/Re-clearing Requirements

- 8.1 Work within the boundaries of this project shall include clearing/re-clearing. The work may be performed on both urban/residential and rural sites where a specified or desired right-of-way shall be established, reestablished and maintained. Trimming shall adhere to ANSI A300 guidelines and OSHA Safety regulations. If the crown of a tree or any branches are within the right-of-way boundaries, even though the base of the tree is outside of the right-of-way boundary, this tree will be considered as part of the Bid Project and shall be removed or trimmed to meet the guidelines (i.e. overhang from a tree outside of right of way).
- 8.2 Techniques consistent with the practices of directional, natural, lateral, and drop crotch trimming should be utilized. Drop crotch pruning consists of reducing tops, sides, or individual limbs and avoids cutting back to small suckers. Directional

pruning or trimming shall be used to direct or train future tree growth or sprouting away from the wires. Tree trimming required on coniferous trees (pine, spruce, hemlock, etc.), along the established tree edge shall involve the removal and/or trimming of limbs that are encroaching the right-of-way. Removal of the limbs will be back to the main stem, trunk, and/or to suitable live lateral branch.

- 8.3 The practices of “shearing”, “flat-topping”, “pollarding”, “stubbing”, and “rounding over” shall not be permitted anywhere along Jackson Energy’s lines.
- 8.4 Right of way clearing and tree trimming shall be performed on all primary lines. All tree trimming on right-of-way boundaries shall be ground to sky. Tree removals will be concentrated to trees that may pose a threat to primary lines (i.e. danger trees), trees of a fast growing species (i.e. maples, and poplars) and trees requested by landowners to be removed within the Row. Trees that are outside of the Row will be trimmed to obtain proper clearance. Contractors are not responsible for tree removals requested by landowners that are outside of the Row unless such trees are hazard trees. Emphasis shall be placed on removing trees in the 4-12 inch range, where approval is granted by the property owner. Trees larger than 4-12 inch shall be trimmed if reasonable clearance can be obtained to avoid contact with primary lines until the next trim cycle, unless otherwise requested by the landowner.
- 8.5 Where trimming only is permitted, the lateral pruning method shall be employed. Clearances following our right of way widths for single and three phase lines shall be obtained wherever possible. Trees where landowners may refuse to allow these clearances shall have clearances that will provide a minimum of ten (10) feet of unobstructed space (any direction) from JEC’s conductors, including the system neutral.
- 8.6 When working on the floor of unmaintained areas any brush less than 3 feet in height will be left and will be sprayed the year after work on this circuit is complete. Any brush higher than 3 feet must be cut during work on that circuit.
- 8.7 As designated by the authorized Jackson Energy representative **fruit bearing trees** that remain within the right-of-way shall be trimmed not removed in accordance to the Jackson Energy right-of-way clearing guidelines unless otherwise notified by the property owner.
- 8.8 Existing right of way consisting of primary lines shall be cleared to meet the clearance standards below. If the existing Right-of-Way is in such condition that the clearances below are already achieved then no work is needed. In the event that the right-of-way clearance is not sufficient then work will progress in accordance with these specifications. Normal right of way widths are as follows:
 - a.) Three-Phase Primary lines - 40 ft.

b.) Single-Phase Primary lines - 30 ft.

- 8.9 Secondary lines and Individual services will not be the responsibility of the Contractor on Circuit bids. Secondary circuits include all right-of-way between the Jackson Energy owned pole with transformer and the final Jackson Energy owned pole. Clearing of secondary services will be the responsibility of the landowner unless a hazardous situation exists that would not allow them to maintain those lines. If such a hazard exists a service man will be dispatched to trim enough to allow swing clearance of the secondary wire. If a landowner requests to remove a tree near a service wire, JEC will temporarily take down the wire while the landowner resolves the removal of the tree in question.
- 8.10 All overhead guy stubs, anchors, and riser poles, shall be cleared of all vines and vegetation to allow reasonable access to that facility for maintenance and serviceability. Generally this would include the area within 5 feet of the pole or equipment.
- 8.11 Unless otherwise specified by JEC, all removals shall be as close to the ground as the topography and type of soil will allow, with a maximum remaining height of three (3) inches for brush stubs and three (3) inches for tree stumps. Stumps resulting from circuit clearing will **NOT** need to be treated due to spray work scheduled for the following year. Actual product to be used must be approved by Jackson Energy. Applicators must be licensed by the Kentucky Department of Agriculture. The contractor assumes any and all liability that may arise as a result of the misapplication of the cut stump treatment. All communications concerning notifications and refusals of cut stump herbicide applications must be recorded in the written daily log kept by the contractor and referenced to the specific property in question
- 8.12 Mechanical Clearing and Re-Clearing work will be permitted where applicable. After any mechanical operation, if any damages to property exist, the Contractor shall restore the land to the natural contour existing prior to the start of the work (i.e. ruts caused by machinery). This must be accomplished to the satisfaction of Jackson Energy and the landowner.
- 8.13 All work is to be performed under the supervision of the contractor. Work shall be conducted in a manner such that all phases of the clearing and/or reclearing work shall progress concurrently, (i.e., cutting, disposal and final cleanup). Jackson Energy has the sole authority to designate the class of right-of-way. If any recent right-of-way clearing/reclearing is encountered, and it does not conform to these specifications, it must be included in the bid.
- 8.14 Disposal of operation wood residue such as brush, wood, large sections of tree trunks, large limbs, wood chips, and other such products produced or generated by this operation on the JEC system shall not obstruct roads, paths, or waterways. Disposal of said residue shall be the sole responsibility of the Contractor and at

approved locations. All disposal costs shall be included in the cost submitted on the JEC bid. When approved by property owners, logs and brush may be left "wind-rowed" along the outer edges of the right of way. In general, unless otherwise approved by the property owner, the premises of the property owner shall be left as neat as before the Work started.

- 8.15 Disposal of wood from **Urban areas** and or **Yards** will consist of the clean up of all brush and large wood will be cut and stacked. **The Contractor will not be responsible for the removal of large wood.** Cleanup of wood resulting from the removal of a tree will be the responsibility of the landowner. The area will be left in a neat fashion as it was before work was completed unless otherwise instructed by the property owner. Disposal of wood and brush in **Unmaintained Right of Ways** will consist of wind rowing the brush and wood to the outer edge of the right of way.
- 8.16 Members requesting **Timber** of a merchantable size to be left will be cut in lengths of 100 inches unless otherwise specified by the landowner. The timber will be piled on the edge of the right of way and will become the responsibility of the landowner to remove.
- 8.17 Any dead trees or trees deemed to be a hazard even if beyond the right of way, which would strike the line in falling, shall be removed. Contractors are also responsible for any hazardous trees missed upon inspection and will be sent back to remove these hazards. (*Hazard trees may include but not limited to dead or dying trees, trees with visible cankers or rots, severe leaning trees, and trees with severe animal or mechanical damage showing signs of rot*).
- 8.18 Vines on poles, guy wires, and equipment shall be removed and cut off at ground level and the area surrounding the pole and/or equipment.

Section 9.0 Options for Refusals/Reluctance to Yield Right-of-Way

- 9.1 Options to modify right-of-way clearing may be offered to individual landowners or groups of adjacent landowners that object to clearing according to the standards indicated by the Jackson Energy right-of-way program. In providing these options, Jackson Energy seeks to enable individual members to choose methods for right-of-way clearance that best address their concerns while preventing the burden of costs for use of non-standard procedures from being placed upon Jackson Energy members as a whole.

Because of varying site conditions, not all options will be offered in all locations. Options that may be available for a particular site include:

Grinding of stumps:

Stump Grinding will not be used on the JEC system unless authorized by a representative of JEC. If any stump grinding is utilized by JEC the Contractor will be compensated at an hourly rate.

Relocation of lines:

Where consistent with Jackson Energy standards for line maintenance/improvement, rerouting of lines or moving lines underground at the member's expense will be considered. Rerouting must follow Jackson Energy guidelines, and accessibility to the lines must be as good as or better than at the original location. In locations where groups of landowners must agree to rerouting, it is the responsibility of the interested landowners to negotiate agreement with adjacent landowners and obtain necessary easements before rerouting can proceed. If such agreement cannot be obtained within a time frame specified by Jackson Energy, right-of-way clearing will proceed unless other options are negotiated individually with Jackson Energy.

Replacement Tree Voucher:

Subject to agreement with the landowner, Jackson Energy may assume or share reasonable costs for providing a voucher for member to purchase a replacement tree. Trees/shrubs must be replaced with an approved species planted at an appropriate distance from the lines and members are responsible for their care. Jackson Energy reserves the right to limit quantities of replacement tree vouchers and no more than one replacement voucher will be allowed per member/location.

Section 10.0 Use of Chemicals and Sprays

- 10.1 The Contractor shall ensure that the on-site applicator be certified by the Kentucky Department of Agriculture, Division of Pesticides. Only certified applicator(s) may apply herbicide on Jackson Energy right-of-way. Copies of applicators licenses shall be given to Jackson Energy prior to starting any projects.
- 10.2 All herbicides used by the contractor shall be approved by Jackson Energy and used in accordance with the manufacturer's specifications on the label. Herbicides with a National Fire Protection Association (NFPA) health rating of 3 or greater shall not be used on Jackson Energy's system unless specifically approved by Jackson Energy. Contractor shall be responsible for purchasing, storing, and furnishing chemicals to its crews.
- 10.3 There will be no herbicide application on National Forest or other State or Federally owned lands unless authorized with proper permits and authorization from the proper manager of those lands.

- 10.4 All herbicide treatment crews shall have the ability to perform foliar and basal chemical treatment where applicable. All grasses, ferns, herbaceous plants, annual weeds, and annual plants, and those compatible non-woody species shall not be treated unless directed to do so by the authorized representative.
- 10.5 Treatment Around Poles and Guy Wire Attachments - Cut off all vines ascending all poles and guy wires at the height of reach. Treat with herbicides all vines below cutting and other vegetation, which may interfere with Jackson Energy's facilities from all poles and guy wires. In the case of kudzu vines, Jackson Energy must be notified within 2 days of the existence of this condition, in order for us to place kudzu guards the pole and guide wires.
- 10.6 Herbicide treatment of right of way may be done at various locations using suitable herbicides to control vegetation particular to that location. Detailed records of the applicator's name, property owner permission, date, location, amount and type of herbicide used shall be kept and copies furnished to JEC on a routine basis or upon completion of the job. Prior to commencement of any Work involving the application of chemicals, the Contractor shall thoroughly familiarize and inform himself of all local conditions and other factors which could or might affect herbicide treatment.
- 10.7 Unless otherwise specified by JEC, the Contractor shall mix and apply the herbicides in accordance with the recommendations of the manufacturer's label and the following general specifications:
- (a) For Foliage Application: This method shall be used only on brush during the active plant growth period, generally between May 1 and September 1. Herbicide mixture shall be applied to completely wet the entire leaf, stem and trunk surface of each plant.
 - (b) For Basal Application: This method shall be used on brush of any size at any season of the year. Herbicide mixture shall be applied to completely wet the entire surface of the stem or trunk from the root-crown up the stem eighteen (18) inches, with emphasis on completely wetting the root-crown.
 - (c) For Stump Application: This method shall be used on all new stumps at any season of the year. Stumps shall be treated as soon as practical, but always on the same day that the cutting is performed. Herbicide mixture shall be applied in sufficient volume to completely wet the sapwood, the area around the outer edge of stump.
- 10.8 Contractor shall not be obligated to treat any portion of a line where damages to crops, orchards, or ornamental plants may result from chemical drift.
- 10.9 JEC will have the right to specify when and where herbicide application and/or herbicide treatment will be used in rural areas or otherwise.
- 10.10 Contractor's use of herbicides in connection with the Work shall be in strict compliance with all federal and state laws, rules and regulations which from time