2011-00450

KENTUCKY PUBLIC SERVICE COMMISSION

Electric Distribution Utility Annual Reliability Report

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PUBLIC SERVICE COMMISSION

SECTION 1: CONTACT INFORMATION

UTILITY NAME REPORT PREPARED BY E-MAIL ADDRESS OF PREPARER PHONE NUMBER OF PREPARER BIG SANDY RECC

JEFF PRATER

jprater@bigsandyrecc.com

606-791-4095

SECTION 2: REPORTING YEAR

CALENDAR YEAR OF REPORT

2015

SECTION 3: MAJOR EVENT DAYS (MED)

FIRST DATE USED TO DETERMINE T_{MED}

LAST DATE USED TO DETERMINE T_{MED}

NUMBER OF MED IN REPORT YEAR

17.05 January 1,2015 31-Dec-15

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 13,000

TOTAL CIRCUITS 36

Excluding MED

5 YEAR AVERAGE			REPORTING YEAR
SAIDI	172.12	SAIDI	284.2
SAIFI	2.56	SAIFI	2.79

Including MED

5 YEAR AVERAGE			REPORTING YEAR
SAIDI	575	SAIDI	1542
SAIFI	2.91	SAIFI	3.88

Notes:

- 1) All duration indices (SAIDI) are to be reported in units of minutes.
- 2) Reports are due on the first business day of May of each year
- 3) Reports cover the calendar year ending in the December before the reports are due.
- 4) IEEE 1366 (latest version) is used to define SAIDI, SAIFI, and T_{MED}

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SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAID! AND/OR SAIF! EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1:

- 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. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE N NUMBERS REPRESENTED 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

SEE ATTACHMENTS

KENTUCKY PUBLIC SERVICE COMMISSION

SECTION 6: VEGETATION MANAGEMENT PLAN REVIEW

INCLUDE CURRENT VEGETATION MANAGEMENT PLAN Additional page may be attached as needed.

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BIG SANDY RECC 2015 REPORTING OUTAGE CAUSES FOR CIRCUIT AND PERCENTAGES

SAIDI

COW CREEK # 992	MILES- 81/ MEMBERS-1060]	DATE OF LAST CIRCUIT TRIM
430-Tree from overhang or dea	d tree without ice/snow	8%	
999- Cause unknown	·	7%	
300- Material or equitment faul	lt/failure	6%	(Pre-2009) Complete cutting
510-Wind, not trees		4%	Mid Cycle work in
590- Weather, other		2%	2014 and 2015
420- Tree growth		2%	
700- Customer caused		1%	
600- Small animal/bird		1%	
110- maintenance		0%	
ABBOTT # 346	MILES- 23/ MEMBERS- 418		
430-Tree from overhang or dea	d tree without ice/snow	9%	
999- Cause unknown		4%	
300- Material or equitment faul	t/failure	3%	
600- Small animal/bird		2%	2013 Complete cutting
420- Tree growth		2%	
110- maintenance		1%	
700- Customer caused		1%	
510- Wind, not trees		1%	
500- Lighting		0%	
MT. PARKWAY # 608	MILES- 25/ MEMBERS- 316]	
430-Tree from overhang or dea	d tree without ice/snow	8%	
300- Material or equitment faul	t/failure	3%	
420- Tree growth		3%	
999- Cause unknown		3%	
510- Wind, not trees		2%	Pre-2009 Complete cutting
590- Weather, other		2%	
110- maintenance		1%	
500- Lighting		1%	2014 Spray
600- Small animal/bird		1%	
700- Customer caused		0%	
BEECH FORK # 416	MILES- 36/ MEMBERS- 456]	

430- Tree failure from overhang or dead without ice/snow 300- Material or equipment fault/failure	12%	
.no. marcialo cumulibrii idiii/idiiiiE	6%	
999- cause unknown	6%	
420- Tree growth	3%	
600- Small animal, bird	3%	2009 Complete cutting
590- Weather, other	3%	2003 complete cutting
110- Maintenance	2%	
510- Wind, not trees	2%	2011 Spray
500- Lightning	1%	2011 Spi ay
700- Customer caused	0%	
	070	
MIDDLE CREEK # 211 MILES- 32/ MEMBERS- 406		
430- Tree failure from overhang or dead without ice/snow	21%	·
999- cause unknown	6%	
300- Material or equipment fault/failure	4%	
420- Tree growth	4%	2009 Complete cutting
600- Small animal, bird	4%	
590- Weather, other	3%	
500- Lightning	2%	
110- Maintenance	1%	
700- Customer caused	1%	
530- Flood	1%	
100- Construction	0%	
	-	
BOONES CAMP # 552 MILES- 31/ MEMBERS-331		
	420/	
430- Tree failure from overhang or dead without ice/snow	13%	
430- Tree failure from overhang or dead without ice/snow 420- Tree growth	9%	
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 300- Material or equipment fault/failure	9% 7%	
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 300- Material or equipment fault/failure 510- Wind, not trees	9% 7% 3%	. 2014 Complete autting
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 300- Material or equipment fault/failure 510- Wind, not trees 999- cause unknown	9% 7% 3% 4%	2014 Complete cutting
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 300- Material or equipment fault/failure 510- Wind, not trees 999- cause unknown 000-Power Supply	9% 7% 3% 4% 3%	2014 Complete cutting
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 300- Material or equipment fault/failure 510- Wind, not trees 999- cause unknown 000-Power Supply 600- Small animal, bird	9% 7% 3% 4% 3% 3%	2014 Complete cutting
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 300- Material or equipment fault/failure 510- Wind, not trees 999- cause unknown 000-Power Supply 600- Small animal, bird 700- Customer caused	9% 7% 3% 4% 3% 3% 2%	2014 Complete cutting
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 300- Material or equipment fault/failure 510- Wind, not trees 999- cause unknown 000-Power Supply 600- Small animal, bird 700- Customer caused 110- Maintenance	9% 7% 3% 4% 3% 3% 2%	2014 Complete cutting
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 300- Material or equipment fault/failure 510- Wind, not trees 999- cause unknown 000-Power Supply 600- Small animal, bird 700- Customer caused 110- Maintenance 740- Public cut trees	9% 7% 3% 4% 3% 3% 2% 2%	2014 Complete cutting
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 300- Material or equipment fault/failure 510- Wind, not trees 999- cause unknown 000-Power Supply 600- Small animal, bird 700- Customer caused 110- Maintenance	9% 7% 3% 4% 3% 3% 2%	2014 Complete cutting
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 300- Material or equipment fault/failure 510- Wind, not trees 999- cause unknown 000-Power Supply 600- Small animal, bird 700- Customer caused 110- Maintenance 740- Public cut trees	9% 7% 3% 4% 3% 3% 2% 2%	2014 Complete cutting
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 300- Material or equipment fault/failure 510- Wind, not trees 999- cause unknown 000-Power Supply 600- Small animal, bird 700- Customer caused 110- Maintenance 740- Public cut trees 590- Weather, other	9% 7% 3% 4% 3% 3% 2% 2%	2014 Complete cutting
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 300- Material or equipment fault/failure 510- Wind, not trees 999- cause unknown 000-Power Supply 600- Small animal, bird 700- Customer caused 110- Maintenance 740- Public cut trees 590- Weather, other CALLOWAY # 756 MILES- 35/ MEMBERS-543	9% 7% 3% 4% 3% 2% 2% 1% 0%	2014 Complete cutting
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 300- Material or equipment fault/failure 510- Wind, not trees 999- cause unknown 000-Power Supply 600- Small animal, bird 700- Customer caused 110- Maintenance 740- Public cut trees 590- Weather, other CALLOWAY # 756 MILES- 35/ MEMBERS-543 430- Tree failure from overhang or dead without ice/snow	9% 7% 3% 4% 3% 2% 2% 1% 0%	2014 Complete cutting
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 300- Material or equipment fault/failure 510- Wind, not trees 999- cause unknown 000-Power Supply 600- Small animal, bird 700- Customer caused 110- Maintenance 740- Public cut trees 590- Weather, other CALLOWAY # 756 MILES- 35/ MEMBERS-543 430- Tree failure from overhang or dead without ice/snow 999- cause unknown	9% 7% 3% 4% 3% 2% 2% 1% 0%	2014 Complete cutting Pre-2009 complete cutting

510- Wind, not trees 500- Lightning 110- Maintenance 740- Public cuts tree WHITEHOUSE # 550 MILES- 51/ MEMBERS-481 430- Tree failure from overhang or dead without ice/snow 999- cause unknown 300- Material or equipment fault/failure 420- Tree growth 510- Wind, not trees 590- Weather, other 500- Lightning 600- Small animal, bird 700- Customer caused 730- Fire	2% 1% 1% 0% 11% 7% 4% 3% 2% 2% 1% 1% 1% 1%	Mid cycle work on going 2016 2013 Complete cutting
110- Maintenance 740- Public cuts tree WHITEHOUSE # 550 MILES- 51/ MEMBERS-481 430- Tree failure from overhang or dead without ice/snow 999- cause unknown 300- Material or equipment fault/failure 420- Tree growth 510- Wind, not trees 590- Weather, other 500- Lightning 600- Small animal, bird 700- Customer caused	1% 0% 11% 7% 4% 3% 2% 2% 1% 1% 1%	2013 Complete cutting
740- Public cuts tree WHITEHOUSE # 550 MILES- 51/ MEMBERS-481 430- Tree failure from overhang or dead without ice/snow 999- cause unknown 300- Material or equipment fault/failure 420- Tree growth 510- Wind, not trees 590- Weather, other 500- Lightning 600- Small animal, bird 700- Customer caused	0% 11% 7% 4% 3% 2% 1% 1% 1% 1%	2013 Complete cutting
WHITEHOUSE # 550 MILES- 51/ MEMBERS-481 430- Tree failure from overhang or dead without ice/snow 999- cause unknown 300- Material or equipment fault/failure 420- Tree growth 510- Wind, not trees 590- Weather, other 500- Lightning 600- Small animal, bird 700- Customer caused	11% 7% 4% 3% 2% 2% 1% 1% 1%	2013 Complete cutting
430- Tree failure from overhang or dead without ice/snow 999- cause unknown 300- Material or equipment fault/failure 420- Tree growth 510- Wind, not trees 590- Weather, other 500- Lightning 600- Small animal, bird 700- Customer caused	7% 4% 3% 2% 2% 1% 1% 1%	2013 Complete cutting
999- cause unknown 300- Material or equipment fault/failure 420- Tree growth 510- Wind, not trees 590- Weather, other 500- Lightning 600- Small animal, bird 700- Customer caused	7% 4% 3% 2% 2% 1% 1% 1%	2013 Complete cutting
300- Material or equipment fault/failure 420- Tree growth 510- Wind, not trees 590- Weather, other 500- Lightning 600- Small animal, bird 700- Customer caused	4% 3% 2% 2% 1% 1% 1%	2013 Complete cutting
420- Tree growth 510- Wind, not trees 590- Weather, other 500- Lightning 600- Small animal, bird 700- Customer caused	3% 2% 2% 1% 1% 1%	2013 Complete cutting
510- Wind, not trees 590- Weather, other 500- Lightning 600- Small animal, bird 700- Customer caused	2% 2% 1% 1% 1% 1%	2013 Complete cutting
590- Weather, other 500- Lightning 600- Small animal, bird 700- Customer caused	2% 1% 1% 1% 1%	2013 Complete cutting
500- Lightning 600- Small animal, bird 700- Customer caused	1% 1% 1% 1%	
600- Small animal, bird 700- Customer caused	1% 1% 1%	
700- Customer caused	1% 1%	
	1%	
730- Fire		
	0%	
440- Tree with ice/snow		
RENO'S # 234 MILES- 1/ MEMBERS-29		•
420- Tree growth	6%	
300- Material or equipment fault/failure	6%	
600- Small animal, bird	6%	
700- Customer caused	6%	2015 Mid Cycle trim
999- Cause unknown	6%	
750- Vandalism	3%	
700- Customer caused	3%	
500- Lightning	3%	
SALT LICK # 308 MILES-52/ MEMBERS-895		
430- Tree failure from overhang or dead without ice/snow	7%	
420- Tree growth	5%	
590- Weather, other	5%	
300- Material or equipment fault/failure	3%	
700- Customer caused	3%	2015 Complete cutting
999- Cause unknown	2%	
110- Maintenance	2%	
510- Wind, not trees	1%	
600- Small animal, bird	1%	
000- Power Supply	1%	
500-Lightning	1%	
520- Ice, sleet, frost, not trees	0%	

SPURLOCK # 311	MILES-18/ MEMBERS-285		
430- Tree failure from overhang o	or dead without ice/snow	11%	
300- Material or equipment fault,		5%	
999- Cause unknown		3%	
420- Tree growth		3%	2011 Spray
110- Maintenance		1%	Mid Cycle work
590- Weather, other		1%	ma eyale nonk
600- Small animal, bird		1%	
700- Customer caused		1%	
500-Lightning		1%	
740- Public cut trees		0%	
HARGUS # 256	MILES-49/ MEMBERS-423		
700- Customer caused		11%	
420- Tree growth		8%	
300- Material or equipment fault/	failure	6%	
430- Tree failure from overhang o	r dead without ice/snow	6%	
999- Cause unknown		5%	2012 Complete cutting
590- Weather, other		4%	
000- Power Supply		1%	
110- Maintenance		1%	
510- Wind, not trees		1%	
500-Lightning		1%	
600- Small animal, bird		0%	
VOLGA # 225	MILES-29/ MEMBERS-252		
999- Cause unknown		21%	
590- Weather, other		9%	
600- Small animal, bird		6%	
700- Customer caused		4%	2014 Complete cutting
740- Public cut trees		3%	
730- Fire		1%	
800- Other		1%	
690- Animal, other		0%	
ROCKFORK # 679	MILES-22/MEMBERS-378		
430- Tree failure from overhang o	r dead without ice/snow	8%	
999- Cause unknown		6%	
590- Weather, other		5%	•
300- Material or equipment fault/i	failure	3%	
420- Tree growth		3%	Pre-2009
510- Wind, not trees		2%	
700- Customer caused		2%	Mid Cycle 2015 work

### A STAND STORE STAMP #63 MILES-15/MEMBERS-210 10% 420- Tree failure from overhang or dead without ice/snow 9% 2015 Mid Cycle with part of the property of the pr	600- Small animal, bird	1%	
430- Tree failure from overhang or dead without ice/snow 430- Material or equipment fault/failure 999- Cause unknown 699- Cause unknown 699- Cause unknown 690- Weather, other 700- Customer caused 310- Wind, not trees 500- Lightning 600- Small animal, bird 690- Lightning 690- Lightning 690- Lightning 690- Lightning 690- Cause unknown 690- Cause unknown 690- Cause unknown 690- Small animal, bird 690- Weather, other 690- Small animal, bird 6	520- Ice, sleet, frost, not trees	1%	
420- Tree growth 300- Material or equipment fault/failure 999- Cause unknown 590- Weather, other 700- Customer caused 310- Wind, not trees 500- Small animal, bird 430- Tree failure from overhang or dead without ice/snow 599- Cause unknown 590- Lightning 599- Cause unknown 590- Unit failure from overhang or dead without ice/snow 599- Cause unknown 590- Cause unknown 590- Cause unknown 590- Cause unknown 590- Waterial or equipment fault/failure 590- Power Supply 590- Material or equipment fault/failure 590- Weather, other 790- Customer caused 551 HWY # 497 MILES-12/MEMBERS-159 430- Tree failure from overhang or dead without ice/snow 10% 110- Maintenance 690- Small animal, bird 790- Power Supply 799- Cause unknown 799- Cause	BOONES CAMP #63 MILES-15/MEMBERS-210		
300- Material or equipment fault/failure 999- Cause unknown 5% 999- Cause unknown 5% 500- Weather, other 700- Customer caused 3% 510- Wind, not trees 500- Lightning 600- Small animal, bird VOLGA # 95 MILES-29/MEMBERS-402 VOLGA # 95 MILES-29/MEMBERS-402 999- Cause unknown 430- Tree failure from overhang or dead without ice/snow 5% 600- Small animal, bird 3% 2011 Complete cutt 3% 420- Tree growth 3% 500-Lightning 1% 740- Public cut trees DENVER # 466 MILES-29/MEMBERS-402 430- Tree failure from overhang or dead without ice/snow 420- Tree growth 5% 500-Lightning 740- Public cut trees DENVER # 466 MILES-29/MEMBERS-402 430- Tree failure from overhang or dead without ice/snow 15% 420- Tree growth 599- Cause unknown 5% 500- Power Supply 300- Material or equipment fault/failure 200- Fower Supply 300- Weather, other 700- Customer caused ABO- Tree failure from overhang or dead without ice/snow 1% 5T HWY # 497 MILES-12/MEMBERS-159 MILES-12/MEMBERS-159 ABO- Tree failure from overhang or dead without ice/snow 10% 100- Maintenance 4% 500- Small animal, bird 3% 300- Power Supply 3% 400- Tree failure from overhang or dead without ice/snow 10% 100- Maintenance 4% 500- Small animal, bird 3% 300- Power Supply 3% 400- Tree failure from overhang or dead without ice/snow 10% 110- Maintenance 4% 500- Small animal, bird 3% 400- Power Supply 3% 500- Wear Supply 510- Wind, not trees 3% 500- Customer caused 500- Small animal, bird 3% 500- Fower Supply 510- Wind, not trees 509- Cause unknown 3%	430- Tree failure from overhang or dead without ice/snow	10%	
999- Cause unknown 6% 2015 Mid Cycle wo 590- Weather, other 6% 5700- Customer caused 39% 510- Wind, not trees 29% 500-Lightning 29% 600- Small animal, bird 1% 500- Small animal, bird 19% 500- Customer caused 19% 500- Customer caused 19% 500- Small animal, bird 19% 500- Small animal	420- Tree growth		
590- Weather, other 700- Customer caused 3700- Small animal, bird 3700- Small animal, bird 3700- Material or equipment fault/failure 3700- Material or equipment fault/failure 3700- Public cut trees 3700- Power Supply 3700- Power Supply 3700- Power Supply 3700- Material or equipment fault/failure 3700- Small animal, bird 3700- Power Supply 3700- Material or equipment fault/failure 3700- Power Supply 3700- Material or equipment fault/failure 3700- Power Supply 3700- Material or equipment fault/failure 3700- Customer caused 3700- Customer caused 3700- Weather, other 3700- Customer caused 3700- Small animal, bird 3700- Maintenance 3700- Small animal, bird 3700- Power Supply 3700- Maintenance 3700- Small animal, bird 3700- Power Supply 3700- Maintenance 3700- Small animal, bird 3700- Power Supply 3700- Power Supply 3700- Small animal, bird 3700- Power Supply 3700- Power Supply 3700- Small animal, bird 3700- Power Supply 3700- Small animal, bird 3700- Power Supply 3700-	300- Material or equipment fault/failure	6%	
590- Weather, other 700- Customer caused 33% 510- Wind, not trees 500-Lightning 600- Small animal, bird WOLGA # 95 MILES-29/MEMBERS-402 999- Cause unknown 430- Tree failure from overhang or dead without ice/snow 600- Small animal, bird 33% 300- Material or equipment fault/failure 420- Tree growth 500-Lightning 740- Public cut trees DENVER # 466 MILES-29/MEMBERS-402 MILES-29/MEMBERS-402 430- Tree failure from overhang or dead without ice/snow 55% 560- Small animal, bird 57% 58% 590- Weather, other 700- Customer caused MILES-12/MEMBERS-159 MILES-12/MEMBERS-159 430- Tree failure from overhang or dead without ice/snow 550-Lightning 510- Wind, not trees 550- Small animal, bird 550- Small animal, bird 550- Weather, other 750- Customer caused 55T HWY # 497 MILES-12/MEMBERS-159 MILES-12/MEMBERS-159 430- Tree failure from overhang or dead without ice/snow 10% 440- Tree failure from overhang or dead without ice/snow 10% 450- Small animal, bird 450-	999- Cause unknown	6%	2015 Mid Cycle wo
510- Wind, not trees 500-Lightning 500- Small animal, bird VOLGA # 95 MILES-29/MEMBERS-402 999- Cause unknown 430- Tree failure from overhang or dead without ice/snow 5% 600- Small animal, bird 3% 2011 Complete cutt 300- Material or equipment fault/failure 3% 420- Tree growth 500-Lightning 1% 740- Public cut trees DENVER # 466 MILES-29/MEMBERS-402 MILES-29/MEMBERS-402 DENVER # 466 DENVER # 466 DENVER # 466 DENVER # 466 MILES-29/MEMBERS-402 DENVER # 466 DENVER # 4	590- Weather, other	6%	·
500-Lightning 2% 600- Small animal, bird 1% VOLGA # 95	700- Customer caused	3%	
### ACCORD Small animal, bird 196 ### ACCORD Small animal, bird 197 ### ACCORD Small animal, bird 36 ### ACCORD Small animal, bird 37 ### ACCORD Small animal, bird 49 ### ACCORD Small Animal, 50 ### ACCORD Small Animal, 50 ### ACCORD Sma	510- Wind, not trees	2%	
VOLGA # 95 MILES-29/MEMBERS-402 999- Cause unknown 430- Tree failure from overhang or dead without ice/snow 5% 600- Small animal, bird 3% 2011 Complete cutt 3% 420- Tree growth 500- Lightning 740- Public cut trees DENVER # 466 MILES-29/MEMBERS-402 430- Tree failure from overhang or dead without ice/snow 420- Tree growth 5% 999- Cause unknown 5% 500- Lightning 3% Scheduled for 201 5% 5% 900- Power Supply 300- Material or equipment fault/failure 2% 500- Small animal, bird 590- Weather, other 700- Customer caused MILES-12/MEMBERS-159 4% 500- Small animal, bird 5% 500- Small animal, bird 4% 500- Small animal, bird	500-Lightning	2%	
999- Cause unknown 430- Tree failure from overhang or dead without ice/snow 5% 600- Small animal, bird 3% 300- Material or equipment fault/failure 3% 420- Tree growth 500-Lightning 740- Public cut trees DENVER # 466 MILES-29/MEMBERS-402 430- Tree failure from overhang or dead without ice/snow 420- Tree growth 5% 699- Cause unknown 5% 500-Lightning 3% Scheduled for 201 5% 909- Cause unknown 5% 500-Lightning 3% Scheduled for 201 5% 600-Small animal, bird 400-Customer caused 1% MILES-12/MEMBERS-159 MILES-12/MEMBERS-159 430- Tree failure from overhang or dead without ice/snow 10% 440-Tree failure from overhang or dead without ice/snow 10% 450-Customer caused 1% 470-Customer caused 170-Maintenance 470-Small animal, bird 470-	600- Small animal, bird	1%	
### 430- Tree failure from overhang or dead without ice/snow	VOLGA # 95 MILES-29/MEMBERS-402		
430- Tree failure from overhang or dead without ice/snow 600- Small animal, bird 300- Material or equipment fault/failure 420- Tree growth 500-Lightning 740- Public cut trees DENVER # 466 MILES-29/MEMBERS-402 430- Tree failure from overhang or dead without ice/snow 420- Tree growth 5% 699- Cause unknown 500-Lightning 3% Scheduled for 201 5510- Wind, not trees 5000- Power Supply 300- Material or equipment fault/failure 590- Weather, other 700- Customer caused 100- Tree failure from overhang or dead without ice/snow 100- Power Supply 300- Material or equipment fault/failure 590- Weather, other 700- Customer caused 100- Tree failure from overhang or dead without ice/snow 100- Maintenance 100- Small animal, bird 100- Maintenance 100- Small animal, bird 100- Maintenance 100- Small animal, bird 100- Small animal, bird 100- Power Supply 300- Wind, not trees 300- Small animal, bird 100- Power Supply 300- Wind, not trees 300- Small animal, bird 300- Power Supply 510- Wind, not trees 309- Cause unknown 300- Cause unknown	999- Cause unknown	6%	
2011 Complete cutt 300- Material or equipment fault/failure 300- Material or equipment fault/failure 300- Lightning 300- Lightning 300- Miles-29/MEMBERS-402 200- Public cut trees 300- Miles-29/MEMBERS-402 200- Power Supply 300- Material or equipment fault/failure 300- Weather, other 300- Customer caused 300- Power Supply 300- Tree failure from overhang or dead without ice/snow 300- Miles-12/MEMBERS-159 300- Miles-12/MEMBERS-159 300- Power Supply 300- Power Supply 300- Customer caused 300- Small animal, bird 300- Power Supply 300- Miles-12/MEMBERS-159 300- Power Supply 300- Cause unknown 300- Power Supply 300- Cause unknown 300- Power Supply 300- Power Supply 300- Cause unknown 300- Power Supply 300- Cause unknown 300- Power Supply 300- Power Su	430- Tree failure from overhang or dead without ice/snow		
300- Material or equipment fault/failure 420- Tree growth 500-Lightning 740- Public cut trees 0% DENVER # 466 MILES-29/MEMBERS-402 430- Tree failure from overhang or dead without ice/snow 420- Tree growth 599- Cause unknown 500-Lightning 39% Scheduled for 201 510- Wind, not trees 20% 2000- Power Supply 300- Material or equipment fault/failure 600- Small animal, bird 590- Weather, other 700- Customer caused 10% ST HWY # 497 MILES-12/MEMBERS-159 430- Tree failure from overhang or dead without ice/snow 10% 110- Maintenance 40% 600- Small animal, bird 40% 600- Small animal, bird 500- Power Supply 330- Tree failure from overhang or dead without ice/snow 10% 110- Maintenance 40% 600- Small animal, bird 500- Power Supply 510- Wind, not trees 33% 2011 Complete cutt 699- Cause unknown	600- Small animal, bird	3%	2011 Complete cutt
500-Lightning 1% 740- Public cut trees 0% DENVER # 466 MILES-29/MEMBERS-402 430- Tree failure from overhang or dead without ice/snow 15% 420- Tree growth 5% 699- Cause unknown 5% 500-Lightning 3% Scheduled for 201 510- Wind, not trees 2% 600- Power Supply 2% 6500- Small animal, bird 2% 6500- Customer caused 1% ET HWY # 497 MILES-12/MEMBERS-159 430- Tree failure from overhang or dead without ice/snow 10% 110- Maintenance 4% 6500- Small animal, bird 4% 6500- Small animal, bird 4% 6500- Power Supply 3% 510- Wind, not trees 3% 2011 Complete cutt 399- Cause unknown 3%	300- Material or equipment fault/failure	3%	•
### DENVER # 466 MILES-29/MEMBERS-402 ### A30- Tree failure from overhang or dead without ice/snow 15% ### 420- Tree growth 5% ### 999- Cause unknown 5% ### 500-Lightning 3% Scheduled for 201 ### 510- Wind, not trees 2% ### 500- Power Supply 2% ### 500- Small animal, bird 2% ### 590- Weather, other 1% ### 700- Customer caused 1% ### 511- Maintenance 4% ### 600- Small animal, bird 4% ### 500- Power Supply 3% ### 510- Wind, not trees 3% 2011 Complete cutt ### 599- Cause unknown 3%	420- Tree growth	3%	
### DENVER # 466 MILES-29/MEMBERS-402 #### 430- Tree failure from overhang or dead without ice/snow 15% #### 420- Tree growth 5% ### 999- Cause unknown 5% ### 500-Lightning 3% Scheduled for 201 ### 510- Wind, not trees 2% ### 500- Power Supply 2% ### 300- Material or equipment fault/failure 2% ### 590- Weather, other 1% ### 700- Customer caused 1% ### 497 MILES-12/MEMBERS-159 ### 497 MILES-12/MEMBERS-159 ### 430- Tree failure from overhang or dead without ice/snow 10% ### 110- Maintenance 4% ### 500- Small animal, bird 4% ### 500- Power Supply 3% ### 510- Wind, not trees 3% 2011 Complete cutt ### 599- Cause unknown 3%	500-Lightning	1%	
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 5% 999- Cause unknown 550- Lightning 37 Scheduled for 201 510- Wind, not trees 28 000- Power Supply 29 29 29 29 29 29 29 29 29 29 29 29 29 2	740- Public cut trees	0%	
420- Tree growth 5% 999- Cause unknown 5% 500-Lightning 3% Scheduled for 201 510- Wind, not trees 2% 000- Power Supply 2% 300- Material or equipment fault/failure 2% 500- Small animal, bird 2% 590- Weather, other 1% 700- Customer caused 1% 5T HWY # 497 MILES-12/MEMBERS-159 430- Tree failure from overhang or dead without ice/snow 10% 110- Maintenance 4% 500- Small animal, bird 4% 500- Power Supply 3% 510- Wind, not trees 3% 2011 Complete cutt 1999- Cause unknown 3%	DENVER # 466 MILES-29/MEMBERS-402		
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999- Cause unknown 500-Lightning 510- Wind, not trees 2000- Power Supply 2000- Material or equipment fault/failure 2000- Small animal, bird 2000- Customer caused 2000- Customer caused 2000- Milles-12/MEMBERS-159 2000- Material or equipment fault/failure 2000- Small animal, bird 2000- Weather, other 2000- Milles-12/MEMBERS-159 2000- Customer caused 2000- Small animal, bird 2000- Power Supply 2000- Power Supply 2000- Power Supply 2000- Power Supply 2000- Cause unknown 2001- Complete cuttors	420- Tree growth		
Scheduled for 201 510- Wind, not trees 510- Wind, not trees 500- Power Supply 530- Material or equipment fault/failure 500- Small animal, bird 590- Weather, other 700- Customer caused MILES-12/MEMBERS-159 430- Tree failure from overhang or dead without ice/snow 110- Maintenance 4000- Small animal, bird 4000- Power Supply 510- Wind, not trees 4399- Cause unknown 438 526 538 538 540 5510- Wind, not trees 539 5510- Wind, not trees 5510-	999- Cause unknown		
2% 000- Power Supply 2% 000- Material or equipment fault/failure 2% 000- Small animal, bird 290- Weather, other 700- Customer caused MILES-12/MEMBERS-159 430- Tree failure from overhang or dead without ice/snow 110- Maintenance 4% 000- Small animal, bird 200- Power Supply 310- Wind, not trees 329- Cause unknown 299- Cause unknown 299- Cause unknown 298- 298- 298- 298- 298- 298- 298- 298-	500-Lightning		Scheduled for 201
2% 300- Material or equipment fault/failure 2% 500- Small animal, bird 290- Weather, other 2700- Customer caused 2700- Customer caused 2700- Tree failure from overhang or dead without ice/snow 2700- Maintenance 2700- Small animal, bird 2700- Small animal, bird 2700- Power Supply 2700- Power Supply 2700- Customer animal animal, bird 2700- Power Supply 2700- Wind, not trees 2700- Customer animal anim	510- Wind, not trees		
590- Small animal, bird 590- Weather, other 700- Customer caused MILES-12/MEMBERS-159 430- Tree failure from overhang or dead without ice/snow 110- Maintenance 4% 600- Small animal, bird 4% 000- Power Supply 510- Wind, not trees 999- Cause unknown 2% 1% 2% 1% 2% 1% 2% 1% 2% 1% 2% 1% 2% 2011 Complete cutted to the country of the country of the cutted to	000- Power Supply		
590- Weather, other 700- Customer caused MILES-12/MEMBERS-159 430- Tree failure from overhang or dead without ice/snow 110- Maintenance 4% 600- Small animal, bird 2000- Power Supply 3% 510- Wind, not trees 399- Cause unknown 3%	300- Material or equipment fault/failure	2%	
700- Customer caused MILES-12/MEMBERS-159 430- Tree failure from overhang or dead without ice/snow 10% 110- Maintenance 4% 600- Small animal, bird 700- Power Supply 3% 510- Wind, not trees 399- Cause unknown 3%	600- Small animal, bird	2%	
A30- Tree failure from overhang or dead without ice/snow 110- Maintenance 4% 500- Small animal, bird 500- Power Supply 510- Wind, not trees 999- Cause unknown MILES-12/MEMBERS-159 10% 4% 4% 500- 200- 200- 200- 200- 200- 200- 200-	590- Weather, other	1%	
430- Tree failure from overhang or dead without ice/snow 110- Maintenance 4% 500- Small animal, bird 500- Power Supply 3% 510- Wind, not trees 399- Cause unknown 3%	700- Customer caused	1%	
110- Maintenance 4% 600- Small animal, bird 4% 000- Power Supply 3% 510- Wind, not trees 3% 2011 Complete cutt 999- Cause unknown 3%	ST HWY # 497 MILES-12/MEMBERS-159		
110- Maintenance 4% 600- Small animal, bird 4% 000- Power Supply 3% 510- Wind, not trees 3% 2011 Complete cutt 999- Cause unknown 3%	430- Tree failure from overhang or dead without ice/snow	10%	
500- Small animal, bird 4% 500- Power Supply 3% 510- Wind, not trees 3% 2011 Complete cutt 999- Cause unknown 3%	110- Maintenance		
D00- Power Supply3%510- Wind, not trees3%2011 Complete cutt999- Cause unknown3%	600- Small animal, bird		
510- Wind, not trees 3% 2011 Complete cutt 999- Cause unknown 3%	000- Power Supply		
999- Cause unknown 3%	510- Wind, not trees		2011 Complete cutt
	999- Cause unknown		•
	100- Construction		

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300- Material or equipme	ent fault/failure	1%	•
530- Flood		1%	
740- Public cut trees		0%	
THELMA # 392	MILES-76/MEMBERS-1030		
430- Tree failure from over	erhang or dead without ice/snow	5%	
300- Material or equipme	ent fault/failure	5%	
590- Weather, other	•	4%	
999- Cause unknown		4%	Pre-2009
420- Tree growth		3%	
510- Wind, not trees		3%	
700- Customer caused		2%	Mid Cycle work 2015
110- Maintenance		2%	,
600- Small animal, bird		1%	
000- Power Supply		1%	
500-Lightning		0%	



BIG SANDY RECC 2015 REPORTING OUTAGE CAUSES FOR CIRCUIT AND PERCENTAGES

SAIFI

COW CREEK # 992	MILES- 81/ MEMBERS-1060		DATE OF LAST CIRCUIT TRIM
			
430-Tree from overhang or d	lead tree without ice/snow	8%	
999- Cause unknown		7%	
300- Material or equitment f	ault/failure	6%	Pre-2009 Complete cutting
510-Wind, not trees		4%	
590- Weather, other		2%	Mid Cycle work in
420- Tree growth		2%	2014 and 2015
700- Customer caused		1%	
600- Small animal/bird		1%	
110- maintenance		0%	
ABBOTT # 346	MILES- 23/ MEMBERS- 418		
430-Tree from overhang or d	ead tree without ice/snow	· 9%	
999- Cause unknown	·	4%	
300- Material or equitment fa	ault/failure	3%	
600- Small animal/bird		2%	2013 Complete cutting
420- Tree growth		2%	, -
110- maintenance		1%	
700- Customer caused		1%	
510- Wind, not trees		1%	
500- Lighting		0%	
MT. PARKWAY # 608	MILES- 25/ MEMBERS- 316		
430-Tree from overhang or d	ead tree without ice/snow	8%	
300- Material or equitment fa	ault/failure	3%	
420- Tree growth		3%	
999- Cause unknown		3%	Pre-2009 Complete cutting
510- Wind, not trees		2%	•
590- Weather, other		2%	
110- maintenance		1%	2014 Spray
500- Lighting		1%	• •
600- Small animal/bird		1%	
700- Customer caused		0%	

590- Weather, other 600- Small animal, bird 700- Customer caused 510- Wind, not trees 500- Lightning 110- Maintenance 740- Public cuts tree SALT LICK # 308 MILES-52/ MEMBERS-895 MILES-52/ MEMBERS-895 MILES-52/ MEMBERS-895 A30- Tree failure from overhang or dead without ice/snow 420- Tree growth 590- Weather, other 300- Material or equipment fault/failure 700- Customer caused 999- Cause unknown 10- Maintenance 2% 510- Wind, not trees 600- Small animal, bird 000- Power Supply 500- Lightning 520- Ice, sleet, frost, not trees 0% Mid Cycle work on going Mid Cycle work on going Mid Cycle work on going 1% 2016 2016 2016 2016 2016 2016 2016 2016 2016 2016 2016 2016 2015 2015 Complete cutting 2015 2015 Complete cutting 2015 2015 Complete cutting 2016 2017 2018 2018 2019 2	BOONES CAMP # 552	MILES- 31/ MEMBERS-331		
420- Tree growth 300- Material or equipment fault/failure 510- Wind, not trees 999- cause unknown 400- Power Supply 300- Power Supply 300- Small animal, bird 700- Customer caused 210- Maintenance 240- Tree failure from overhang or dead without ice/snow 250- Uightning 110- Maintenance 270- Customer caused 370- Weather, other 380- Uightning 380- Will Weather 380- Uightning 380- Weather, other 380- Weather, other 380- Weather, other 380- Willes-52/ MEMBERS-895	430- Tree failure from quarks	and or dond without in January		
300- Material or equipment fault/failure 510- Wind, not trees 999- cause unknown 999- cause unknown 300- Power Supply 3600- Small animal, bird 700- Customer caused 276 110- Maintenance 176 1776 1776 1776 1776 1776 1776 1776		ang of dead without ice/snow		
510- Wind, not trees 3% 2014 Complete cutting 999- cause unknown 4% 2014 Complete cutting 000- Power Supply 3% 700- Customer caused 2% 110- Maintenance 2% 1% 740- Public cut trees 1% 590- Weather, other CALLOWAY # 756 MILES-35/ MEMBERS-543 7% 430- Tree failure from overhang or dead without ice/snow 4% 990- cause unknown 4% 300- Material or equipment fault/failure 3% Pre-2009 complete cutting 420- Tree growth 3% Pre-2009 complete cutting 590- Weather, other 2% Mid Cycle work on going 510- Wind, not trees 2% Mid Cycle work on going 510- Wind, not trees 2% Mid Cycle work on going 510- Wind, not trees 2% 2016 500- Lightning 1% 2016 430- Tree failure from overhang or dead without ice/snow 7% 2016 430- Tree growth 5% 5% 590- Weather, other 5% 2015 Complete cutting 300- Material or equipment fault/failure 3% 2015 Complete cutting <td>_</td> <td>fault /failure</td> <td></td> <td></td>	_	fault /failure		
999- cause unknown		auit/iaiiure		
000-Power Supply 3% 600- Small animal, bird 3% 700- Customer caused 2% 110- Maintenance 1% 740- Public cut trees 1% 590- Weather, other 0% CALLOWAY # 756	•			2044.6
600- Small animal, bird 700- Customer caused 110- Maintenance 740- Public cut trees 590- Weather, other CALLOWAY # 756 MILES-35/ MEMBERS-543 430- Tree failure from overhang or dead without ice/snow 999- cause unknown 300- Material or equipment fault/failure 420- Tree growth 590- Weather, other 296 500- Uightning 110- Maintenance 740- Public cuts tree SALT LICK # 308 MILES-52/ MEMBERS-895 430- Tree failure from overhang or dead without ice/snow 999- Cause unknown 396 397 398 399- Cause unknown 399 399- Cause unknown 390- Outpetc cutting 390- Customer caused 39				2014 Complete cutting
700- Customer caused 2% 740- Public cut trees 1% 590- Weather, other 0% CALLOWAY # 756 MILES-35/ MEMBERS-543 430- Tree failure from overhang or dead without ice/snow 4% 300- Material or equipment fault/failure 3% 420- Tree growth 3% Pre-2009 complete cutting 590- Weather, other 2% 600- Small animal, bird 2% 700- Customer caused 2% Mid Cycle work on going 510- Wind, not trees 2% 2016 SALT LICK # 308 MILES-52/ MEMBERS-895 430- Tree failure from overhang or dead without ice/snow 470- Public cuts tree 5% 300- Material or equipment fault/failure 3% 2015 Complete cutting 5% 590- Weather, other 5% 590- Weather, other 5% 590- Weather, other 5% 500- Lightning 1% 590- Weather, other 5% 590- Watherlal or equipment fault/failure 3% 2015 Complete cutting 700- Customer caused 3% 999- Cause unknown 2% 110- Maintenance 2% 510- Wind, not trees 1% 600- Small animal, bird 1% 000- Power Supply 1% 500- Lightning 1%				
110- Maintenance	•			
740- Public cut trees 590- Weather, other CALLOWAY # 756				
590- Weather, other 0% CALLOWAY # 756 MILES-35/ MEMBERS-543 430- Tree failure from overhang or dead without ice/snow 7% 999- cause unknown 4% 300- Material or equipment fault/failure 3% 420- Tree growth 3% Pre-2009 complete cutting 590- Weather, other 2% 600- Small animal, bird 2% Mid Cycle work on going 510- Wind, not trees 2% 2016 500- Lightning 1% 2016 SALT LICK # 308 MILES-52/ MEMBERS-895 430- Tree failure from overhang or dead without ice/snow 420- Tree growth 5% 590- Weather, other 3% 2015 Complete cutting 700- Customer caused 3% 2015 Complete cutting 700-				
430- Tree failure from overhang or dead without ice/snow 999- cause unknown 300- Material or equipment fault/failure 420- Tree growth 590- Weather, other 600- Small animal, bird 700- Customer caused 500- Lightning 110- Maintenance 740- Public cuts tree SALT LICK # 308 MILES-52/ MEMBERS-895 MILES-52/ MEMBERS-895 MILES-52/ MEMBERS-895 A30- Tree failure from overhang or dead without ice/snow 420- Tree growth 590- Weather, other 300- Material or equipment fault/failure 700- Customer caused 999- Cause unknown 110- Maintenance 510- Wind, not trees 126 527 538 539- Cause unknown 110- Maintenance 126 530- Small animal, bird 000- Power Supply 530- Lightning 127 530- Lightning 138 530- Miles-52/ MEMBERS-895				
430- Tree failure from overhang or dead without ice/snow 999- cause unknown 300- Material or equipment fault/failure 336 420- Tree growth 590- Weather, other 600- Small animal, bird 700- Customer caused 510- Wind, not trees 500- Lightning 110- Maintenance 740- Public cuts tree 430- Tree failure from overhang or dead without ice/snow 420- Tree growth 590- Weather, other 300- Material or equipment fault/failure 336 309- Cause unknown 247 300- Material or equipment fault/failure 348 3500- Material or equipment fault/failure 3500- Material or equipment fault/failure 3500- Material or equipment fault/failure 3500- Small animal, bird 3500- Small animal, bird 3500- Small animal, bird 3500- Small animal, bird 3500- Lightning 3500- Lightning 3600- Small animal, bird 3700- Power Supply 3700- Customer caused 3700- Small animal, bird 3700- Power Supply 3700- Lightning 3700- Customer caused 3700- Small animal, bird 3700- Lightning 3700- Customer caused 3700- Small animal, bird 3700- Lightning 3700- Customer caused 3700- Small animal, bird 3700- Lightning 3700- Customer caused 3700- Customer caus	590- Weather, other	•	0%	
999- cause unknown 300- Material or equipment fault/failure 420- Tree growth 590- Weather, other 600- Small animal, bird 700- Customer caused 510- Wind, not trees 500- Lightning 110- Maintenance 740- Public cuts tree SALT LICK # 308 MILES-52/ MEMBERS-895 MILES-52/ MEMBERS-895 MILES-52/ MEMBERS-895 A30- Tree failure from overhang or dead without ice/snow 420- Tree growth 590- Weather, other 300- Material or equipment fault/failure 300- Customer caused 309- Cause unknown 209- Cause unknown 210- Maintenance 250- Wind, not trees 600- Small animal, bird 000- Power Supply 500- Lightning 104 500- Lightning 105 500- Lightning 106 500- Simall animal, bird 500- Simall animal, bird 500- Lightning 500- Simall animal, bird 500- Simall animal, bird 500- Lightning 500- L	CALLOWAY # 756	MILES- 35/ MEMBERS-543		
999- cause unknown 300- Material or equipment fault/failure 420- Tree growth 590- Weather, other 600- Small animal, bird 700- Customer caused 27% 700- Customer caused 28% 2016 500- Lightning 110- Maintenance 740- Public cuts tree MILES-52/ MEMBERS-895 430- Tree failure from overhang or dead without ice/snow 420- Tree growth 590- Weather, other 300- Material or equipment fault/failure 700- Customer caused 37% 300- Material or equipment fault/failure 38% 399- Cause unknown 29% 110- Maintenance 510- Wind, not trees 600- Small animal, bird 000- Power Supply 500- Lightning 11% 500- Lightning 500- Light	430- Tree failure from overha	ing or dead without ice/snow	7%	
300- Material or equipment fault/failure 420- Tree growth 590- Weather, other 600- Small animal, bird 700- Customer caused 510- Wind, not trees 500- Lightning 110- Maintenance 740- Public cuts tree SALT LICK # 308 MILES-52/ MEMBERS-895 Miles - 52/ MEMBERS - 895 MILES - 52/ MEMBERS - 895 MILES - 52/ MEMBERS - 895 A30- Tree failure from overhang or dead without ice/snow 420- Tree growth 590- Weather, other 300- Material or equipment fault/failure 700- Customer caused 999- Cause unknown 110- Maintenance 510- Wind, not trees 510- Wind, not trees 600- Small animal, bird 000- Power Supply 500- Lightning 520- Ice, sleet, frost, not trees		3		
420- Tree growth 590- Weather, other 600- Small animal, bird 700- Customer caused 510- Wind, not trees 500- Lightning 110- Maintenance 740- Public cuts tree SALT LICK # 308 MILES-52/ MEMBERS-895 430- Tree failure from overhang or dead without ice/snow 420- Tree growth 590- Weather, other 300- Material or equipment fault/failure 700- Customer caused 999- Cause unknown 110- Maintenance 226 510- Wind, not trees 510- Lightning 520- Ice, sleet, frost, not trees 526 538 789- Pre-2009 complete cutting 790- Customer caused 796 707 708- Alid Cycle work on going 708 709 700- Customer from overhang or dead without ice/snow 778 779 780 780 780 780 780 780 780 780 780 780	300- Material or equipment for	ault/failure		
590- Weather, other 600- Small animal, bird 700- Customer caused 510- Wind, not trees 500- Lightning 110- Maintenance 740- Public cuts tree SALT LICK # 308 MILES-52/ MEMBERS-895 430- Tree failure from overhang or dead without ice/snow 420- Tree growth 590- Weather, other 300- Material or equipment fault/failure 700- Customer caused 399- Cause unknown 199- Cause unknown 296 110- Maintenance 297 110- Maintenance 298 110- Mintenance 3199- Cause unknown 3199- Cause unknown 329- Cause unknown 339- Cause unknown 349- Cause unknown 350- Cause unknown 360- Cause unknown 370- Cause unknown 380- Cause unknown 390- Cause unknown		,		Pre-2009 complete cutting
600- Small animal, bird 700- Customer caused 2% Mid Cycle work on going 510- Wind, not trees 2% 2016 500- Lightning 1% 110- Maintenance 1% 740- Public cuts tree 0% SALT LICK # 308 MILES-52/ MEMBERS-895 430- Tree failure from overhang or dead without ice/snow 420- Tree growth 590- Weather, other 300- Material or equipment fault/failure 700- Customer caused 3% 999- Cause unknown 2% 110- Maintenance 2% 510- Wind, not trees 600- Small animal, bird 000- Power Supply 500- Lightning 500- Lightning 510- Lightning 510- Lice, sleet, frost, not trees	- ,			The Edds domplete editing
700- Customer caused 510- Wind, not trees 500- Lightning 110- Maintenance 740- Public cuts tree SALT LICK # 308 MILES-52/ MEMBERS-895 430- Tree failure from overhang or dead without ice/snow 420- Tree growth 590- Weather, other 300- Material or equipment fault/failure 700- Customer caused 999- Cause unknown 110- Maintenance 510- Wind, not trees 600- Small animal, bird 000- Power Supply 500- Lightning 500-	·			
510- Wind, not trees 500- Lightning 110- Maintenance 740- Public cuts tree SALT LICK # 308 MILES-52/ MEMBERS-895 430- Tree failure from overhang or dead without ice/snow 420- Tree growth 590- Weather, other 300- Material or equipment fault/failure 700- Customer caused 999- Cause unknown 2700- Customer caused 999- Cause unknown 110- Maintenance 1270- Wind, not trees 1170- Wind, not trees 1270- Wind, not trees 1270- Unique provided in the service of	· · · · · · · · · · · · · · · · · · ·			Mid Cycle work on going
500- Lightning 196 110- Maintenance 196 740- Public cuts tree 096 SALT LICK # 308 MILES-52/ MEMBERS-895 430- Tree failure from overhang or dead without ice/snow 796 420- Tree growth 596 590- Weather, other 396 300- Material or equipment fault/failure 396 700- Customer caused 396 999- Cause unknown 296 110- Maintenance 296 510- Wind, not trees 196 600- Small animal, bird 196 000- Power Supply 196 500- Lightning 196 520- Ice, sleet, frost, not trees 096				
110- Maintenance 740- Public cuts tree SALT LICK # 308 MILES-52/ MEMBERS-895 430- Tree failure from overhang or dead without ice/snow 420- Tree growth 590- Weather, other 300- Material or equipment fault/failure 700- Customer caused 999- Cause unknown 2% 110- Maintenance 510- Wind, not trees 600- Small animal, bird 000- Power Supply 500-Lightning 520- Ice, sleet, frost, not trees 0%				2010
740- Public cuts tree 0% SALT LICK # 308 MILES-52/ MEMBERS-895 430- Tree failure from overhang or dead without ice/snow 7% 420- Tree growth 5% 590- Weather, other 5% 300- Material or equipment fault/failure 3% 2015 Complete cutting 700- Customer caused 3% 999- Cause unknown 2% 110- Maintenance 2% 510- Wind, not trees 1% 600- Small animal, bird 1% 000- Power Supply 1% 500-Lightning 1% 520- Ice, sleet, frost, not trees	- •			
430- Tree failure from overhang or dead without ice/snow 420- Tree growth 590- Weather, other 590- Weather, other 300- Material or equipment fault/failure 300- Customer caused 3				
420- Tree growth 590- Weather, other 300- Material or equipment fault/failure 700- Customer caused 3999- Cause unknown 296 110- Maintenance 296 510- Wind, not trees 196 600- Small animal, bird 000- Power Supply 500-Lightning 520- Ice, sleet, frost, not trees 0%	SALT LICK # 308	MILES-52/ MEMBERS-895		
420- Tree growth 590- Weather, other 300- Material or equipment fault/failure 700- Customer caused 3999- Cause unknown 296 110- Maintenance 296 510- Wind, not trees 196 600- Small animal, bird 000- Power Supply 500-Lightning 520- Ice, sleet, frost, not trees 0%	430- Tree failure from overha	ng or dead without ice/snow	7%	
590- Weather, other 300- Material or equipment fault/failure 700- Customer caused 399- Cause unknown 10- Maintenance 510- Wind, not trees 600- Small animal, bird 000- Power Supply 500-Lightning 500- Lightning 500- Light, not trees 500- Small animal, not trees 500- Lightning				
300- Material or equipment fault/failure 300- Customer caused 3999- Cause unknown 2999- Cause unknown 210- Maintenance 296 510- Wind, not trees 196 600- Small animal, bird 000- Power Supply 196 500- Lightning 196 520- Ice, sleet, frost, not trees 096 2015 Complete cutting 386 2015 Complete cutting 386 2015 Complete cutting 387 2015 Complete cutting 386 2015 Complete cutting 387 2016 Complete cutting 387 2	-			
700- Customer caused 3% 999- Cause unknown 2% 110- Maintenance 2% 510- Wind, not trees 1% 600- Small animal, bird 1% 000- Power Supply 1% 500-Lightning 1% 520- Ice, sleet, frost, not trees 0%	•	ault/failure		2015 Complete cutting
999- Cause unknown 2% 110- Maintenance 2% 510- Wind, not trees 1% 600- Small animal, bird 1% 000- Power Supply 1% 500-Lightning 1% 520- Ice, sleet, frost, not trees 0%				2023 complete duting
110- Maintenance 2% 510- Wind, not trees 1% 600- Small animal, bird 1% 000- Power Supply 1% 500-Lightning 1% 520- Ice, sleet, frost, not trees 0%				
510- Wind, not trees 1% 600- Small animal, bird 1% 000- Power Supply 1% 500-Lightning 1% 520- Ice, sleet, frost, not trees 0%	110- Maintenance			
600- Small animal, bird 1% 000- Power Supply 1% 500-Lightning 1% 520- Ice, sleet, frost, not trees 0%				
000- Power Supply 1% 500-Lightning 1% 520- Ice, sleet, frost, not trees 0%				
500-Lightning 1% 520- Ice, sleet, frost, not trees 0%				
520- Ice, sleet, frost, not trees 0%				
SPURLOCK # 311 MILES-18/ MEMBERS-285	_	;		
	SPURLOCK # 311	MILES-18/ MEMBERS-285	7	

300- Material or equipment fault/failure	5%	
999- Cause unknown	3%	
420- Tree growth	3%	2011 Spray
110- Maintenance	1%	
590- Weather, other	1%	Mid Cycle work
600- Small animal, bird	1%	
700- Customer caused	1%	
500-Lightning	1%	
740- Public cut trees	0%	
VOLGA # 225 MILES-29/ MEMBERS-252		
999- Cause unknown	21%	
590- Weather, other	9%	
600- Small animal, bird	6%	
700- Customer caused	4%	2014 Complete cutting
740- Public cut trees	3%	
730- Fire	1%	
800- Other	1%	
690- Animal, other	0%	
ST HWY # 497 MILES-12/MEMBERS-159		
420 Tara follows from our by	4.504	
430- Tree failure from overhang or dead without ice/snow	10%	
110- Maintenance 600- Small animal, bird	4%	
000- Small animal, bird 000- Power Supply	4% 3%	2011 Complete autting
510- Wind, not trees	3% 3%	2011 Complete cutting
999- Cause unknown	3%	
100- Construction	1%	
300- Material or equipment fault/failure	1%	
530- Flood	1%	
740- Public cut trees	0%	
THELMA # 392 MILES-76/MEMBERS-1030		
430- Tree failure from overhang or dead without ice/snow	5%	
300- Material or equipment fault/failure	5%	
590- Weather, other	4%	
999- Cause unknown	4%	Pre- 2009
420- Tree growth	3%	
510- Wind, not trees	3%	Mid Cycle work 2015
700- Customer caused	2%	
110- Maintenance	2%	
600- Small animal, bird	1%	
000- Power Supply	1%	
500-Lightning	0%	

DENVER # 708 MILES-37/MEMBERS-439 430- Tree failure from overhang or dead without ice/snow 16% 999- Cause unknown 5% 300- Material or equipment fault/failure 3% 420- Tree growth 3% Pre-2009 510- Wind, not trees 2% 110- Maintenance 2% Mid Cycle work 2015 590- Weather, other 2% 700- Customer caused 2% 500-Lightning 1% 600- Small animal, bird 0%



Big Sandy RECC Right-of-Way Plan and Procedures

Big Sandy RECC has 968 miles of distribution line.

Big Sandy's Right-of-Way plan has been revised in order to re-establish a systematic and sustainable maintenance schedule. Right-of-Way clearing is being scheduled on individual feeder circuits from each substation with clearing to the end of each feeder.

An updated schedule beginning in 2009 and ending in 2018 is planned to cut a complete cycle through the system.

System Herbicide Application began in 2010 to augment Vegetation Management Plan.

Spraying of vines that overtake poles and guys is included as part of Big Sandy's vegetation Plan.

Big Sandy RECC plans to utilize hourly paid and firm price contracts for all right of way cutting and herbicide application.

Circuit Prioritization

Big Sandy's staff is responsible for establishing a preventative maintenance strategy, identifying an appropriate routine maintenance cycle, prioritizing, scheduling and completing routine maintenance systematically and on the desired cycle.

Vegetation maintenance records, service interruption data, detailed Line Worker Reports, ground patrols and member-customer input all contribute to assigning priorities for vegetation maintenance each year.

There are several factors the Big Sandy's staff must consider when evaluating vegetation management needs. These include the frequency of service interruptions, vegetation quantities and characteristics, time elapsed since last treatment and member-customer requests.

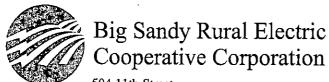
Right-of-Way Clearance Standards

1. Pruning Guidelines for On-R/W Trees - Effective tree clearance for line reliability is dependent on the voltage of the conductor, the type of tree, its growth rate and habit. Clearance shall be accomplished by ground cutting and removing all tall-growing tree species from within the R/W, whenever approved. Where pruning of residential or landscape trees become necessary, prune so as to provide a minimum of three (3) years of clearance. The guidelines for tree clearances apply at the time of pruning and clearing and are intended to protect the wires under normal operating conditions. Special clearances may be needed at times because of field conditions. Additional allowance should be made for wires with excess sag.

- Pruning Along Distribution R/W Edge or Off-R/W Trees Every tree shall be trimmed ground-to-sky in accordance with ANSI A-300. To the extent practicable, these limbs shall be trimmed back to the trunk of the tree except on species that are susceptible to sun scald. Clear the R/W of all trees or brush thirty-five (35) feet wide for three phase lines and thirty (30) feet wide for single phase lines.
- Shaping or rounding-over trees beyond the extent required to achieve the desired conductor/vegetation clearance shall not be performed, unless specifically approved by BIG SANDY or it's REPRESENTATIVE.
- 4. Only trees that are directly involved with BIG SANDY' overhead lines, as defined by this specification shall be pruned. Pruning trees for privately owned lines, other utility lines, or consumer lines or wiring is not permitted.
- On all secondary lines and service drops, as directed by BIG SANDY or its REPERSENTATIVE, drops shall be cleared to the extent that the conductor can swing free of obstructions.
- 6. Big Sandy shall not prune trees solely for area lighting illumination.
- 7. All low growing desirable species, if present, may be left unless:
 - a. they create clearance problems,
 - b. mechanical, non-selective equipment (e.g. mowing) is used, or
 - c. they block access to the rights-of-way or prevent facilities maintenance.
- 8. Ingested wilting foliage of wild cherry is poisonous to livestock. Remove all wild cherry foliage from fields where livestock graze.
- 9. All stumps from manual clearing operations shall be treated with herbicides approved by BIG SANDY.

Jeff Prater

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CORRECTIVE ACTION PLAN

Big Sandy will continue to aggressively trim and spray our right- of-way in an effort to reduce outage time.

RUS Code 430 is the largest amount of outage time. Code 430 is assigned to an outage where an out of ROW tree has fallen into line. Big Sandy is actively working with our line clearance contractors in an effort to identify and remove trees outside the standard ROW zone which pose a danger to the distribution system.

Herbicide work is being expanded to control woody brush under the distribution system and to treat vine growth on poles and guy wires to prevent outages.

Small animal outages are a consistent source of outages. Big Sandy has begun installing small animal guards where small animal outages have occurred.

Circuits will be patrolled in an effort to identify other system improvements such as span length reduction which has proven to help reliabilities.

Thank you,

Jeff Prater