



Big Sandy Rural Electric Cooperative Corporation

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March 12, 2024

Linda Bridwell
Public Service Commission
211 Sower Blvd
Frankfort KY 40602-0615

RE: 2024 Annual Distribution Reliability Report

Dear Honorable Executive,

Big Sandy RECC is filing this report in accordance with PSC requirements. Attached is Big Sandy's 2024 Annual Distribution Reliability Report. Please contact me with any questions.

Sincerely,

Jeff Prater
President and General Manager
Big Sandy RECC
Enclosures

KENTUCKY PUBLIC SERVICE COMMISSION

Electric Distribution Utility Annual Reliability Report

SECTION 1: CONTACT INFORMATION

UTILITY NAME BIG SANDY RECC

REPORT PREPARED BY JEFF PRATER

jprater@bigsandyrecc.com

E-MAIL ADDRESS OF PREPARER

PHONE NUMBER OF PREPARER

606-791-4095

SECTION 2: REPORTING YEAR

CALENDAR YEAR OF REPORT 2024

SECTION 3: MAJOR EVENT DAYS (MED)

TMED 71.1148

FIRST DATE USED TO DETERMINE January 1, 2024

LAST DATE USED TO DETERMINET December 31, 2024

NUMBER OF MED IN REPORT YEAR 2

NOTE: Per IEEE 1366 TMED 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 12,595 TOTAL CIRCUITS 36

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Excluding MED			
	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	524.58	SAIDI	527.26
SAIFI	3.75	SAIFI	3.73

Including MED			
	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	2093.00	SAIDI	814.83
SAIFI	4.69	SAIFI	4.15

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 TMED

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SADI AND/OR SAIFI EXCEEDING 5 YEAR
AVERAGE) (CIRCUIT NUMBERS SHOULD BE REPORTED
EXCLUDING MED)

CIRCUIT :

1. SUBSTATION NAME AND NUMBER
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
3. CIRCUIT NAME AND NUMBER
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
5. TOTAL CIRCUIT LENGTH (MILES)
6. CUSTOMER COUNT FOR THIS CIRCUIT
- 7.. DATE OF LAST CIRCUIT TRIM (VM)

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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 (SAFI)
12. REPORTING YEAR (SAIFI)
13. CORRECTIVE ACTION PLAN

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

SEE ATTACHMENTS

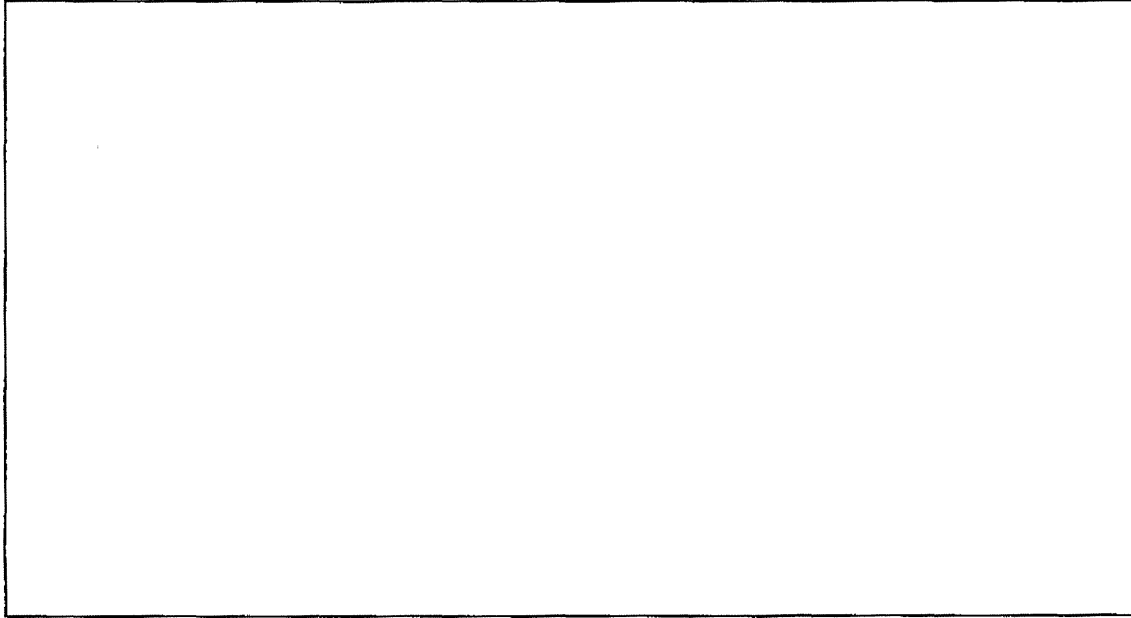
SECTION 6: VEGETATION MANAGEMENT PLAN REVIEW

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

SEE ATTACHMENTS:	ATTACHMENT A
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SECTION 7: UTILITY COMMENTS

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BIG SANDY RECC 2024 REPORTING OUTAGE CAUSES FOR CIRCUIT AND PERCENTAGES

SAIDI/ SAIFI

COW CREEK #992	MILES-62 / MEMBERS-1060	PERCENT	DATE OF LAST CIRCUIT TRIM	OUTAGES
Bill Wells-Substation(Floyd County) US 23, Prestonsburg KY				
SAIDI 696.51 SAIFI 4.73			2018	
Five Year Average: SAIDI 558.94 SAIFI 2.67				
Maintenance		55%		61
Unknown		14%		17
Other		8.5%		10
Equipment – Design		8.5%		10
Public		8.5%		10

CORRECTIVE ACTION: No action planned at this time.

ABBOTT #346	MILES 23/ MEMBERS 418	PERCENT	DATE OF LAST CIRCUIT TRIM	OUTAGES
Bonanza-Substation(Floyd County) Prestonsburg, KY				
SAIDI 756.38 SAIFI 5.35			2023	
Five Year Average: SAIDI 322.89 SAIFI 2.42				
Maintenance		38%		18
Unknown		17%		8
Planned Outage		14%		13
Animals		11%		5
Equipment/Design		9%		4

CORRECTIVE ACTION: ROW was cut on this circuit in 2023.

BOONESCAMP #552	MILES-31/MEMBERS-331	PERCENT	DATE OF LAST CIRCUIT TRIM	OUTAGES
Martin Co Substation (Johnson County) Rt 40 Whitehouse KY		<div>2014</div>		
SAIDI 707.19 SAIFI 4.89				
Five Year Average: SAIDI 522.92 SAIFI 2.78				
Maintenance				
Unknown		10%		5
Other		10%		5
Weather		8%		4
Planned Outage		6%		3
CORRECTIVE ACTION: ROW for this circuit is scheduled to be trimmed in 2026.				

GLYNVIEW #304	MILES-1/ MEMBERS-29	PERCENT	DATE OF LAST CIRCUIT TRIM	OUTAGES
Middle Creek Substation (Floyd Co) Rt 114 Prestonsburg KY		<div>2018</div>		
SAIDI 639.46 SAIFI 2.29				
Five Year Average: SAIDI 130.23 SAIFI .57				
Unknown				
Public		29%		1
Maintenance		2%		2
CORRECTIVE ACTION: This is a short circuit and only had 4 total outages. Major cause was from an unknown cause.				

SPURLOCK #311	MILES-18/ MEMBERS 285	PERCENT	DATE OF LAST CIRCUIT TRIM	OUTAGES
Middle Creek Substation (Floyd Co) Rt 114 Prestonsburg KY		<div>2020</div>		
SAIDI 707.64 SAIFI 6.48				
Five Year Average: SAIDI 455.38 SAIFI 3.13				
Maintenance		75%		19
Planned Outage		12%		3
Equipment/Design		9%		3

CORRECTIVE ACTION: No action planned at this time

DENVER #256	MILES-49/MEMBERS-423	PERCENT	DATE OF LAST CIRCUIT TRIM	OUTAGES
Red Bush Substation (Johnson Co) Rt 469 Red Bush		<div>2012</div>		
SAIDI 406.62 SAIFI 3.90				
Five Year Average: SAIDI 81.32 SAIFI .78				
Maintenance				
Animal		4%		1
Unknown		3%		4

CORRECTIVE ACTION: ROW is scheduled to be trimmed in 2025.

MIDDLE CREEK #90	MILES-42/ MEMBERS-660		DATE OF LAST CIRCUIT TRIM	OUTAGES
Salt Lick Substation (Knott County) KY Hwy 2029 Hueysville KY		2022		
SAIDI 777.20 SAIFI 2.62				
Five Year Average: SAIDI 591.62 SAIFI 4.15				
Power Supply		74%		1
Maintenance		18%		26
Unknown		2%		4
Other		2%		4

CORRECTIVE ACTION: Power Supply was the major cause of the outages on this circuit. AEP is the supplier at this substation and they had issues with a power pole.

ROCK FORK #679	MILES-22 /MEMBERS-378	PERCENT	DATE OF LAST CIRCUIT TRIM	OUTAGES
Salt Lick Substation (Knott County) KY Hwy 2029 Hueysville KY		2017		
SAIDI 1276.46 SAIFI 5.92				
Five Year Average: SAIDI 560.81 SAIFI 3.27				
Power Supply		46%		1
Maintenance		30%		21
Equipment/Design		19%		7
Planned Outage		4%		1
CORRECTIVE ACTION: Power Supply was the major cause of the outages on this circuit. AEP is the supplier at this substation and they had issues with a power pole.				

ROUTE 7 MINE #169	MILES-9/MEMBERS-84	PERCENT	DATE OF LAST CIRCUIT TRIM	OUTAGES		
Salt Lick Substation (Knott County) KY Hwy 2029 Hueysville KY		2017				
SAIDI	8969.03				SAIFI	16.80
Five Year Average: SAIDI 2034.04 SAIFI 5.29						
Power Supply		91%		1		
Other		6%		1		
Planned Outage		2%		1		
CORRECTIVE ACTION: Power Supply was the major cause of the outages on this circuit. AEP is the supplier at this substation and they had issues with a power pole.						

SPORTSPLEX #678		MILES-16/MEMBERS-83	PERCENT	DATE OF LAST CIRCUIT TRIM	OUTAGES
Salt Lick Substation (Knott County) KY Hwy 2029 Hueysville KY			2017		
SAIDI 701.13 SAIFI 1.65					
Five Year Average: SAIDI 605.32 SAIFI 2.49					

Power Supply	82%	1
Maintenance	7%	5
Planned Outage	5%	4
Unknown	3%	2

Corrective Action: Power Supply was the major cause of the outages on this circuit. AEP is the supplier at this substation and they had issues with a power pole.

BOONSCAMP #63	MILES-15/ MEMBERS-210	PERCENT	DATE OF LAST CIRCUIT TRIM	OUTAGES
Thelma Substation (Johnson County) Thelma KY		2019		
SAIDI 912.07 SAIFI 5.98				
Five Year Average: SAIDI 333.28 SAIFI 3.42				

Equipment/Design	46%	11
Maintenance	46%	14
Planned Outage	7%	3

Corrective Action: A large outage occurred on a cold morning that caused a transformer to become overloaded and blew its top off. This event caused a fire that ended up burning the line down.
No action is planned at this time.

RIVER #62	MILES-39/ MEMBERS-547	PERCENT	DATE OF LAST CIRCUIT TRIM	OUTAGES
Thelma Substation (Johnson County) Thelma KY		2019		
SAIDI 479.75 SAIFI 4.11				
Five Year Average: SAIDI 423.77 SAIFI 3.86				

Maintenance	62%	31
Equipment-Design	13%	9
Planned Outage	11%	13
Unknown	8%	8

Corrective Action: Experienced several outages due to out-of-row trees on this circuit.

ATTACHMENT A



Big sandy RECC Right-of-Way Plan and Procedures February 2025

Big Sandy RECC has 968 GPS miles of distribution line.

Big Sandy's Right-of-Way plan is designed to 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.

Circuit cutting is being scheduled based on the time since last circuit clearing, reliability numbers and complete system clearing. Spraying is scheduled with a goal of 4-year rotation.

Spraying of vines that overtake poles and guys is a 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.

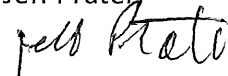
There are several factors the Big Sandy's staff must consider when evaluating vegetation management needs. These include the frequency of service interruptions, vegetation quantities and characteristics, time elapsed since last treatment and member-customer requests.

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.

2. 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.
3. 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 its REPRESENTATIVE.
4. Only trees that are directly involved with BIG SANDY's 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.
5. On all secondary lines and service drops, as directed by BIG SANDY or its REPRESENTATIVE, 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

VP Operations