



GUNSTER
FLORIDA'S LAW FIRM FOR BUSINESS

Writer's Direct Dial Number: (850) 521-1706
Writer's E-Mail Address: bkeating@gunster.com

March 1, 2023

E-PORTAL FILING

Mr. Adam Teitzman, Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: 20230000-OT – Undocketed Filings for 2023.

Dear Mr. Teitzman:

Attached for filing on behalf of Florida Public Utilities Company, please find the Company's 2023 Distribution Reliability Report for the prior period 2022.

As always, please don't hesitate to let me know if you have any questions. Thank you for your assistance with this filing.

Kind regards,

Gunster, Yoakley & Stewart, P.A.
215 South Monroe St., Suite 601
Tallahassee, FL 32301
(850) 521-1706

cc:/ Tom Ballinger
Penelope Buys



**P.O. Box 418
Fernandina Beach
FL 32035-0418
Phone: 904/261-3663
Fax: 904/261-3666
www.fpuc.com**

March 1, 2023

Mr. Thomas Ballinger, Director
Division of Engineering
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0868

Dear Mr. Ballinger:

Attached is Florida Public Utilities Company's required 2022 Annual Update. The update includes the Annual Distribution Service Reliability Report required by Rule 25-6.0455. This report only includes section 1.

The Annual Wood Pole Inspection Report required by Order No. PSC-06-0144, and updates of our Storm Protection Plan (SPP) and Ten Storm Preparedness Initiatives, as required by Order No. PSC-06-0781 will be submitted on June 1, 2023.

If you have any questions, please call (904) 530-7052 or e-mail mcassel@chpk.com.

Sincerely,

A handwritten signature in blue ink that reads "Michael Cassel".

Michael Cassel
Vice President, Governmental and Regulatory Affairs
Florida Public Utilities Company

Attachments

Cc: Commission Clerk
Jeff Sylvester
Martin Cheryl William Haffecke
Mark Cutshaw
Jorge Puentes

Florida Public Utilities Company

Reliability Indices Report (Section I)

2022 Annual Update

March 1, 2023



Florida Public Utilities Company

Reliability Indices

Annual Update

Table of Contents

Introduction

I. Reliability Indices

Introduction

This is the FPUC's annual update. The update includes the Annual Distribution Service Reliability Report required by Rule 25-6.0455. However, this year, the report will initially only include section I. The Annual Wood Pole Inspection Report required by Order No. PSC-06-0144, and updates of our Storm Protection Plan (SPP) and Ten Storm Preparedness Initiatives, as required by Order No. PSC-06-0781 will be submitted in June 1, 2023. The update has been traditionally divided into four primary sections: I. Reliability Indices; II. Wood Pole Inspections; III. Storm Hardening; and, IV. Storm Preparedness Initiatives. FPUC report forms, research reports, contractor reports, and other available supplemental supporting documentation are incorporated into the appropriate sections of the update. FPSC reliability index report forms have been updated and are also included.

FPUC has two electric divisions, Northwest (NW) Division, also referred to as Marianna, and Northeast (NE) Division, and also referred to as Fernandina Beach. In some cases, each division's results are reported separately. For example, NW has no transmission facilities. Therefore, only NE will be reporting on Storm Preparedness Initiatives #3 (Six Year Transmission Structure Inspections) and #4 (Storm Hardening of Existing Transmission Structures). Also, the two divisions are approximately 250 miles apart and, although they may supply resources to support one another during emergency situations, each division will prepare separate emergency response plans to address Initiative #10 (Natural Disaster Preparedness and Recovery Program). In other cases, consolidated reports or a combination of individual and consolidated reports provide a more complete overview and reports are prepared accordingly.

I. Reliability Indices

This section contains the FPUC Annual Distribution Service Reliability Report required by Florida Public Service Commission (FPSC) Rule 25-6.0455.

In addition to the supporting data provided by FPUC for clarification, the report was prepared using the forms developed by FPSC. Indices are reported on an *actual* and *adjusted* basis, as follows:

- a. Total number of Outage Events (N), categorized by cause for the highest ten causes.
- b. Identification of three percent (3%) of Primary Circuits (feeders) with the highest number of feeder breaker interruptions.
- c. SAIDI, CAIDI, SAIFI, and L-Bar reliability indices for each division and by company total*.

Indices are calculated as follows:

$$\text{SAIDI} = \text{System Average Interruption Duration Index} = \frac{\text{Total Customer Minutes of Interruption (CMI)}}{\text{Total Number of Customers Served (C)}}$$

$$\text{CAIDI} = \text{Customer Average Interruption Duration Index} = \frac{\text{Total Customer Minutes of Interruption (CMI)}}{\text{Total Number of Customer Interruptions (CI)}}$$

$$\text{SAIFI} = \text{System Average Interruption Frequency Index} = \frac{\text{Total Number of Customer Interruptions (CI)}}{\text{Total Number of Customers Served (C)}}$$

$$\text{L-Bar} = \text{Average Duration of Outage Events} = \frac{\text{Sum of All Outage Event Durations (L)}}{\text{Total Number of Outage Events (N)}}$$

* The FPUC total electric retail customer count is well below 50,000. Per Rule 25-6.0455, (3) (c), MAIFIe and CEMI5 indices are not applicable (N/A) and not reported at this time.

Forms reporting *actual* data include all outage events. Forms reporting *adjusted* data exclude outage events directly caused by one or more of the following, if applicable:

- a. Planned Service Interruptions;
- b. A storm named by the National Hurricane Center;
- c. A tornado recorded by the National Weather Service;
- d. Ice on lines;
- e. A planned load management event;
- f. Electric generation or transmission events not governed by subsections 25-6.018 (2) and (3);
- g. Extreme weather or fire events causing activation of the county emergency operation center.

Definitions from Rule 25-6.044 'Continuity of Service' are provided below for clarification:

- a. **“Area of Service.”** A geographic area where a utility provides retail electric service. An Area of Service can be the entire system, a district, or a sub-region of the utility’s system in which centralized distribution service functions are carried out.
- b. **“Average Duration of Outage Events (L-Bar).”** The sum of each Outage Event Duration (L) for all Outage Events occurring during a given time period, divided by the Number of Outage Events (N) over the same time period within a specific Area of Service.
- c. **“Customer Average Interruption Duration Index (CAIDI).”** The average time to restore service to interrupted retail customers within a specified Area of Service over a given period of time. It is determined by dividing the sum of Customer Minutes of Interruption (CMI) by the total number of Service (aka Customer) Interruptions (CI) for the respective Area of Service.
- d. N/A (CEMI5).
- e. **“Customer Minutes of Interruption (CMI)”**. For a given Outage Event, CMI is the sum of each affected retail customer’s Service Interruption Duration.
- f. thru h. N/A (MAIFIE)
- i. **“Number of Customers Served (C).”** The sum of all retail customers on the last day of a given time period within a specific Area of Service.
- j. **“Number of Outage Events (N).”** The sum of Outage Events for an Area of Service over a specified period of time.
- k. **“Outage Event.”** An occurrence that results in one or more individual retail customer Service Interruptions.
- l. **“Outage Event Duration (L).”** The time interval, in minutes, between the time a utility first becomes aware of an Outage Event and the time of restoration of service to the last retail customer affected by that Outage Event.
- m. **“Service Interruption.”** The complete loss of voltage of at least one minute to a retail customer. (CI for one customer).
- n. **“Service Interruption Duration.”** The time interval, in minutes, between the time a utility first becomes aware of a Service Interruption and the time of restoration of service to that retail customer. (CMI for one customer).
- o. **“System Average Interruption Duration Index (SAIDI).”** The average minutes of Service Interruption Duration per retail customer served within a specified Area of Service over a given period of time. It is determined by dividing the total Customer Minutes of Interruption (CMI) by the total Number of Customers Served (C) for the respective Area of Service.
- p. **“System Average Interruption Frequency Index (SAIFI).”** The average number of Service Interruptions per retail customer within a specified Area of Service over a given period of time. It is determined by dividing the sum of Service (aka Customer) Interruptions (CI) by the total Number of Customers Served (C) for the respective Area of Service.
- q. **“Planned Service Interruption.”** A Service Interruption initiated by the utility to perform necessary scheduled activities, such as maintenance, infrastructure improvements, and new construction due to customer growth.

**FLORIDA PUBLIC SERVICE COMMISSION
ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT – ACTUAL**

PART I

<u>CAUSES OF OUTAGE EVENTS – ACTUAL</u>			
Utility Name: Florida Public Utilities Company- NE Division			Year: 2022
Cause (a)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Unknown	99	113.25	147.46
Defective Equipment	91	103.88	115.62
Vegetation	59	133.97	190.89
Animal	55	57.87	70.72
Named Storm	54	195.41	294.82
Lightning	47	115.91	114.26
Other Weather	9	147.44	153.74
Vehicle	7	103.71	95.42
Other	7	79.14	51.67
Transmission	6	98.83	57.38
Planned Outage	3	28.33	7.88
System Totals NE	437	116.79	110.09

PSC/ECR 102-1(a) (8/06)
Incorporated by reference in Rule 25-6.0455,
Florida Administrative Code

**FLORIDA PUBLIC SERVICE COMMISSION
ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT – ADJUSTED**

PART I

<u>CAUSES OF OUTAGE EVENTS – ADJUSTED</u>			
Utility Name: Florida Public Utilities Company- NE Division			Year: 2022
Cause (a)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Unknown	99	113.25	147.46
Defective Equipment	91	103.88	115.62
Vegetation	59	133.97	190.89
Animal	55	57.87	70.72
Lightning	47	115.91	114.26
Other Weather	9	147.44	153.74
Vehicle	7	103.71	95.42
Other	7	79.14	51.67
System Totals NE	374	106.44	146.18

PSC/ECR 102-1(b) (8/06)
Incorporated by reference in Rule 25-6.0455,
Florida Administrative Code

**FLORIDA PUBLIC SERVICE COMMISSION
ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT – ACTUAL**

PART I

<u>CAUSES OF OUTAGE EVENTS – ACTUAL</u>			
Utility Name: Florida Public Utilities Company- NW Division			Year: 2022
Cause (a)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Vegetation	269	100.94	88.91
Lightning	125	94.42	100.40
Animal	124	57.02	72.03
Unknown	72	87.22	84.79
Defective Equipment	69	113.62	165.25
Other	28	120.29	194.40
Vehicle	26	106.19	70.04
Other Weather	25	113.60	180.53
Planned Outage	12	75.75	155.41
Named Storm	10	139.00	148.06
Tornado	1	125.00	125.00
System Totals: NW	761	94.01	102.72

PSC/ECR 102-1(a) (8/06)
Incorporated by reference in Rule 25-6.0455,
Florida Administrative Code

**FLORIDA PUBLIC SERVICE COMMISSION
ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT – ADJUSTED**

PART I

<u>CAUSES OF OUTAGE EVENTS – ADJUSTED</u>			
Utility Name: Florida Public Utilities Company – NW Division			Year: 2022
Cause (a)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Vegetation	269	100.94	88.91
Lightning	125	94.42	100.40
Animal	124	57.02	72.03
Unknown	72	87.22	84.79
Defective Equipment	69	113.62	165.25
Other	28	120.29	194.40
Vehicle	26	106.19	70.04
Other Weather	25	113.60	180.53
System Totals: NW	738	93.65	101.34

PSC/ECR 102-1(b) (8/06)
Incorporated by reference in Rule 25-6.0455,
Florida Administrative Code

**FLORIDA PUBLIC SERVICE COMMISSION
ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT – ACTUAL**

PART I

<u>CAUSES OF OUTAGE EVENTS – ACTUAL</u>			
Utility Name: Florida Public Utilities Company- FPUC Total			Year: 2022
Cause (a)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Vegetation	328	106.88	119.61
Animal	179	57.28	71.41
Lightning	172	100.30	103.75
Unknown	171	102.29	112.28
Defective Equipment	160	108.08	130.70
Named Storm	64	186.59	292.83
Other	35	112.06	176.76
Other Weather	34	122.56	166.84
Vehicle	33	105.67	87.62
Planned Outage	15	66.27	36.47
Transmission	6	98.83	57.38
Tornado	1	125.00	125.00
System Totals FPUC	1,198	102.32	107.50

PSC/ECR 102-1(a) (8/06)
Incorporated by reference in Rule 25-6.0455,
Florida Administrative Code

**FLORIDA PUBLIC SERVICE COMMISSION
ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT – ADJUSTED**

PART I

<u>CAUSES OF OUTAGE EVENTS – ADJUSTED</u>			
Utility Name: Florida Public Utilities Company- FPUC Total			Year: 2022
Cause (a)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Vegetation	328	106.88	119.61
Animal	179	57.28	71.41
Lightning	172	100.30	103.75
Unknown	171	102.29	112.28
Defective Equipment	160	108.08	130.70
Other	35	112.06	176.76
Other Weather	34	122.56	166.84
Vehicle	33	105.67	87.62
System Totals FPUC	1,112	97.95	119.50

PSC/ECR 102-1(b) (8/06)
Incorporated by reference in Rule 25-6.0455,
Florida Administrative Code

PART II

<u>THREE PERCENT FEEDER LIST – ACTUAL</u>													
Utility Name: <u>Florida Public Utilities Company</u>											Year: <u>2022</u>		
Primary Circuit Id. No. or Name (a)	Sub-station Origin (b)	Location (c)	Number of Customers					Outage Events “N” (i)	Average Duration “L-Bar” (j)	CAIDI (k)	Listed Last Year? (l)	No. of Years in the Last 5 (m)	Corrective Action Completion Date (n)
			Residential (d)	Commercial (e)	Industrial (f)	Other (g)	Total (h)						
110	AIP	Northeast	1457	30	0	0	1487	4	218.00	212.23	NO	0	N/A
9866	Cottondale	Northwest	1181	262	0	0	1443	2	131.00	131.02	NO	1	N/A

PSC/ECR 102-2(a) (8/06)
 Incorporated by reference in Rule 25-6.0455,
 Florida Administrative Code

PART II

<u>THREE PERCENT FEEDER LIST – ADJUSTED</u>													
Utility Name: <u>Florida Public Utilities Company</u>											Year: <u>2022</u>		
Primary Circuit Id. No. or Name (a)	Sub-station Origin (b)	Location (c)	Number of Customers					Outage Events “N” (i)	Average Duration “L-Bar” (j)	CAIDI (k)	Listed Last Year? (l)	No. of Years in the Last 5 (m)	Corrective Action Completion Date (n)
			Residential (d)	Commercial (e)	Industrial (f)	Other (g)	Total (h)						
111	AIP	Northeast	1355	30	0	0	1385	2	214.00	229.67	NO	0	N/A
9866	Cottondale	Northwest	1181	262	0	0	1443	2	131.00	131.02	NO	1	N/A

PSC/ECR 102-2(b) (8/06)
 Incorporated by reference in Rule 25-6.0455,
 Florida Administrative Code

PART III

<u>SYSTEM RELIABILITY INDICES – ACTUAL</u>					
Utility Name: Florida Public Utilities Company			Year: 2022		
District or Service Area (a)	SAIDI (b)	CAIDI (c)	SAIFI (d)	MAIFle (e)	CEMI5 (f)
NE Division	362.78	110.09	3.30	N/A*	N/A*
NW Division	254.18	102.72	2.47	N/A*	N/A*
System Averages	317.30	107.50	2.95	N/A*	N/A*

* Total # of Electric Retail Customers is well below 50,000. N/A by Rule 25-6.0455 (3) (c)

PSC/ECR 102-3(a) (8/06)
 Incorporated by reference in Rule 25-6.0455,
 Florida Administrative Code

PART III

<u>SYSTEM RELIABILITY INDICES – ADJUSTED</u>					
Utility Name: <u>Florida Public Utilities Company</u>			Year: <u>2022</u>		
District or Service Area (a)	SAIDI (b)	CAIDI (c)	SAIFI (d)	MAIFle (e)	CEMI5 (f)
NE Division	172.79	146.18	1.18	N/A*	N/A*
NW Division	244.22	101.34	2.41	N/A*	N/A*
System Averages	202.70	119.50	1.70	N/A*	N/A*

* Total # of Electric Retail Customers is well below 50,000. N/A by Rule 25-6.0455 (3) (c)

PSC/ECR 102-3(b) (8/06)
 Incorporated by reference in Rule 25-6.0455,
 Florida Administrative Code

2022 - Reliability Indicators By Feeder FPUC – NE (Actual)

Cause	Number of Outage Events (N)	Average Duration (L-Bar)	CAIDI	Sum of all Customer Min. Interrupted (CMI)	Total Customer Interruptions (CI)	Total Outage Duration (L)	SAIDI	SAIFI
AIP (315)	2	88.00	87.99	958,861	10,897	176		
AMELIA ISLAND	1	38.00	38.00	654,778	17,231	38		
AMELIA ISLAND PARKWAY (312)	8	130.38	125.37	65,318	521	1,043		
BAILEY (311)	66	108.09	143.77	538,149	3,743	7,134		
BONNIEVIEW (310)	21	100.19	91.01	208,503	2,291	2,104		
CLINCH DRIVE (214)	30	102.40	142.26	18,921	133	3,072		
COAST CHIPS	3	126.33	126.33	379	3	379		
ELEVEN STREET (212)	48	98.75	73.90	111,509	1,509	4,740		
FIFTEENTH STREET (209)	35	92.00	99.15	27,960	282	3,220		
JASMINE STREET (211)	66	109.30	138.65	458,927	3,310	7,214		
NECTARINE (210)	23	144.09	149.24	156,558	1,049	3,314		
PARKWAY SOUTH (104)	4	166.00	170.33	1,022	6	664		
PLANTATION FIELDSTIDE (111)	22	136.82	289.34	1,249,363	4,318	3,010		
PLANTATION ROADSIDE (110)	15	162.53	211.56	1,074,103	5,077	2,438		
SADLER NECTARINE SO.14TH (215)	25	123.16	88.73	226,075	2,548	3,079		
SOUTH FLETCHER (102)	68	138.41	127.01	565,851	4,455	9,412		
Totals	437	116.79	110.09	6,316,277	57,373	51,037	362.78	3.30

Total No. of Customers at end of 2022==>

17,411

2022 - Reliability Indicators By Feeder FPUC - NE (Adjusted)

Cause	Number of Outage Events (N)	Average Duration (L-Bar)	CAIDI	Sum of all Customer Min. Interrupted (CMI)	Total Customer Interruptions (CI)	Total Outage Duration (L)	SAIDI	SAIFI
AMELIA ISLAND PARKWAY (312)	8	130.38	125.37	65,318	521	1,043		
BAILEY (311)	58	100.36	143.37	525,721	3,667	5,821		
BONNIEVIEW (310)	17	99.65	79.18	48,619	614	1,694		
CLINCH DRIVE (214)	27	89.96	87.95	9,235	105	2,429		
ELEVEN STREET (212)	45	100.09	73.68	106,326	1,443	4,504		
FIFTEENTH STREET (209)	34	92.35	99.22	27,880	281	3,140		
JASMINE STREET (211)	56	109.96	141.36	439,763	3,111	6,158		
NECTARINE (210)	19	117.63	144.13	144,995	1,006	2,235		
PARKWAY SOUTH (104)	4	166.00	170.33	1,022	6	664		
PLANTATION FIELDSIDE (111)	21	122.19	212.03	610,447	2,879	2,566		
PLANTATION ROADSIDE (110)	10	167.30	195.51	452,794	2,316	1,673		
SADLER NECTARINE SO.14TH (215)	23	109.43	85.97	212,958	2,477	2,517		
SOUTH FLETCHER (102)	52	103.13	168.63	363,404	2,155	5,363		
Totals	374	106.44	146.18	3,008,482	20,581	39,807	172.79	1.18

Total No. of Customers at end of 2022 ==> **17,411**

2022 - Reliability Indicators By Feeder FPUC - NW (Actual)

Cause	Number of Outage Events (N)	Average Duration (L-Bar)	CAIDI	Sum of all Customer Min. Interrupted (CMI)	Total Customer Interruptions (CI)	Total Outage Duration (L)	SAIDI	SAIFI
ALTHA (9952)	57	87.51	186.21	260,874	1,401	4,988		
BLOUNTSTOWN (9972)	18	101.06	114.76	33,050	288	1,819		
BRISTOL (9882)	92	76.89	154.53	840,962	5,442	7,074		
COLLEGE (9982)	67	106.70	75.77	286,106	3,776	7,149		
COTTONDALE (9866)	107	92.41	113.16	655,329	5,791	9,888		
DOGWOOD HEIGHTS (9722)	16	137.19	125.66	4,775	38	2,195		
GREENWOOD (9742)	84	89.35	87.69	164,954	1,881	7,505		
HOSPITAL (9872)	63	105.81	76.90	151,959	1,976	6,666		
HWY 90E (9942)	37	93.68	68.64	74,744	1,089	3,466		
HWY 90W (9992)	41	70.90	67.25	76,397	1,136	2,907		
INDIAN SPRINGS (9932)	40	130.85	163.06	154,253	946	5,234		
INDUSTRIAL PARK (9752)	5	85.60	74.22	668	9	428		
PRISON (9732)	1	59.00	59.00	59	1	59		
RAILROAD (9512)	26	111.27	87.27	72,263	828	2,893		
SOUTH STREET (9854)	107	86.63	64.02	412,278	6,440	9,269		
Grand Total	761	94.01	102.72	3,188,671	31,042	71,540	254.18	2.47

Total No. of Customers at end of 2022==>

12,545

2022 - Reliability Indicators By Feeder FPUC - NW (Adjusted)

Cause	Number of Outage Events (N)	Average Duration (L-Bar)	CAIDI	Sum of all Customer Min. Interrupted (CMI)	Total Customer Interruptions (CI)	Total Outage Duration (L)	SAIDI	SAIFI
ALTHA (9952)	55	89.33	188.20	259,904	1,381	4,913		
BLOUNTSTOWN (9972)	17	104.59	115.01	33,009	287	1,778		
BRISTOL (9882)	92	76.89	154.53	840,962	5,442	7,074		
COLLEGE (9982)	66	105.92	75.70	285,632	3,773	6,991		
COTTONDALE (9866)	100	90.79	113.10	644,872	5,702	9,079		
DOGWOOD HEIGHTS (9722)	16	137.19	125.66	4,775	38	2,195		
GREENWOOD (9742)	80	86.70	86.96	162,005	1,863	6,936		
HOSPITAL (9872)	63	105.81	76.90	151,959	1,976	6,666		
HWY 90E (9942)	37	93.68	68.64	74,744	1,089	3,466		
HWY 90W (9992)	39	71.74	62.62	55,540	887	2,798		
INDIAN SPRINGS (9932)	38	125.95	121.88	66,061	542	4,786		
INDUSTRIAL PARK (9752)	5	85.60	74.22	668	9	428		
PRISON (9732)	1	59.00	59.00	59	1	59		
RAILROAD (9512)	26	111.27	87.27	72,263	828	2,893		
SOUTH STREET (9854)	103	87.90	64.12	411,273	6,414	9,054		
Grand Total	738	93.65	101.34	3,063,726	30,232	69,116	244.22	2.41

Total No. of Customers at end of 2022==>

12,545

FPUC 2022 – Reliability Indicators and Analysis

FPUC managed to improve one reliability indicator in 2022. Both NE and NW Divisions continue to invest in its SPP, infrastructure improvements and system upgrades which will continue to generate reliability improvements in the future. L-BAR decreased 4.61% from 102.68 in 2021 to 97.95 in 2022. The other indicators did not show improvements. CADI increased 18.93% from 100.48 in 2021 to 119.50 in 2022. SAFI increased 25.00% from 1.36 in 2021 to 1.70 in 2022. SADI increased 48.47% from 136.53 in 2021 to 202.70 in 2022. However, SAFI improved 2.30% from the 5 year peak of 1.74 in 2020.

As FPU reviews its five year reliability indicator trends, averages and outage causes, it notes indicators continue to be significantly influenced by the weather. This is due to FPU's relatively small territory size when compared to other large investor owned utilities within the state. A good example of this was in October of 2018 when the NW Division had the eye of Hurricane Michael demolish nearly all of its distribution system. Another good example was on September of 2017 when the NE Division had to evacuate its entire territory due to hurricane Irma.

Some of the factors contributing to the increases in the reliability indicators were our discovery of programming issues with a select number of TripSaver II's which created improper protection operations. This issue caused greater number of customers impacted by an outage as well as longer outage restoration times. After discovering this programming issue, affected TripSaver II's were taken off the line and reprogrammed. To further mitigate coordination protection issues, in 2023, FPU plans to complete a system protection coordination study at its NE Division.

While our focus in vegetation management helped to reduce the number of vegetation related outages from 356 in 2021 to 320 in 2022, we still experienced lingering effects of hurricane Michael on the dying tree population and these outages took longer to restore. As FPU continues to implement its SPP and fully transitions from its 3 year feeder and 6 year lateral vegetation management program to a 4 year feeder and lateral each we will continue to see reliability improvement in these areas. In addition, In 2022 FPU managed to complete the replacement of three 69KV circuit breakers, three 69kV voltage/current transformers at its substations and changed several 69kV lightning arrestors on its transmission lines.

FPUC will continue to monitor all reliability indices and outage causes to adjust and improve current reliability programs.

FPUC 2022 – Description of Excluded Events for Named Storms, Transmission, Distribution, and Substations

Named Storms and Tornadoes

The NW Division was affected by hurricane Nicole and one tornado while the NE Division was affected by hurricanes Ian and Nicole.

Transmission and Substation

In 2022 the NE Division experienced several transmission outages. One was on the 138kV system which impacted the entire Amelia Island. This outage was due to a static wire failure. The other outages were to the 69kV system. One was due to a contractor accidentally creating a fault while changing lightning arrestors and the other were due to equipment failures. However, in all cases equipment was repaired and customers' power was restored as quickly as possible. These events are noted in the Excluded Events Tables below.

The NW Division did not experience substation or transmission outages in 2022. The NE and NW Divisions also had other planned outages to perform maintenance to different sections of the distribution system. These outages are noted below in the Excluded Event Tables below. In all cases, FPUC promptly dispatched crews to restore power to customers.

2022 NE Division Excluded Events					
Date	Feeder	Exclusion	Aff Cust	L	CMI
2/15/2022	COAST CHIPS	Transmission	1	100	100
7/7/2022	AMELIA ISLAND	Transmission	17,231	38	654,778
7/8/2022	PLANTATION ROADSIDE (110)	Planned Outage	1	70	70
7/9/2022	AIP (315)	Transmission	5,447	113	615,511
7/20/2022	AIP (315)	Transmission	5,450	63	343,350
8/19/2022	COAST CHIPS	Transmission	1	84	84
8/29/2022	PLANTATION ROADSIDE (110)	Planned Outage	1,378	3	4,134
9/28/2022	NECTARINE (210)	Named Storm - Ian	22	260	5,720
9/28/2022	BAILEY (311)	Named Storm - Ian	6	389	2,334
9/28/2022	CLINCH DRIVE (214)	Named Storm - Ian	20	421	8,420
9/28/2022	SOUTH FLETCHER (102)	Named Storm - Ian	1	289	289
9/28/2022	CLINCH DRIVE (214)	Named Storm - Ian	7	174	1,218
9/28/2022	ELEVEN STREET (212)	Named Storm - Ian	10	15	150
9/28/2022	BONNIEVIEW (310)	Named Storm - Ian	547	36	19,692
9/28/2022	SOUTH FLETCHER (102)	Named Storm - Ian	1	57	57
9/29/2022	NECTARINE (210)	Named Storm - Ian	2	30	60
9/29/2022	BONNIEVIEW (310)	Named Storm - Ian	547	95	51,965
9/29/2022	ELEVEN STREET (212)	Named Storm - Ian	49	83	4,067
9/29/2022	SOUTH FLETCHER (102)	Named Storm - Ian	103	182	18,746
9/29/2022	SOUTH FLETCHER (102)	Named Storm - Ian	51	48	2,448
9/29/2022	SADLER NECTARINE SO.14TH (215)	Named Storm - Ian	61	147	8,967
9/29/2022	SADLER NECTARINE SO.14TH (215)	Named Storm - Ian	10	415	4,150
9/29/2022	JASMINE STREET (211)	Named Storm - Ian	44	83	3,652
9/29/2022	SOUTH FLETCHER (102)	Planned Outage	1,617	12	19,404
9/29/2022	BAILEY (311)	Named Storm - Ian	1	435	435
9/29/2022	JASMINE STREET (211)	Named Storm - Ian	6	65	390
9/29/2022	BAILEY (311)	Named Storm - Ian	1	39	39
9/29/2022	PLANTATION ROADSIDE (110)	Named Storm - Ian	1,380	447	616,860
9/29/2022	SOUTH FLETCHER (102)	Named Storm - Ian	92	585	53,820
9/29/2022	PLANTATION FIELDSIDE (111)	Named Storm - Ian	1,439	444	638,916
9/29/2022	JASMINE STREET (211)	Named Storm - Ian	73	100	7,300
9/29/2022	ELEVEN STREET (212)	Named Storm - Ian	7	138	966
9/29/2022	SOUTH FLETCHER (102)	Named Storm - Ian	51	452	23,052
9/29/2022	JASMINE STREET (211)	Named Storm - Ian	38	126	4,788
9/29/2022	BONNIEVIEW (310)	Named Storm - Ian	547	153	83,691
9/29/2022	BAILEY (311)	Named Storm - Ian	43	177	7,611
9/29/2022	SOUTH FLETCHER (102)	Named Storm - Ian	102	390	39,780
9/29/2022	SOUTH FLETCHER (102)	Named Storm - Ian	23	337	7,751
9/29/2022	BONNIEVIEW (310)	Named Storm - Ian	36	126	4,536
9/29/2022	BAILEY (311)	Named Storm - Ian	8	94	752
9/29/2022	JASMINE STREET (211)	Named Storm - Ian	3	236	708
9/29/2022	JASMINE STREET (211)	Named Storm - Ian	12	108	1,296
9/29/2022	FIFTEENTH STREET (209)	Named Storm - Ian	1	80	80
9/29/2022	SOUTH FLETCHER (102)	Named Storm - Ian	89	39	3,471
9/29/2022	SOUTH FLETCHER (102)	Named Storm - Ian	3	815	2,445
9/29/2022	SOUTH FLETCHER (102)	Named Storm - Ian	51	292	14,892
9/29/2022	NECTARINE (210)	Named Storm - Ian	7	737	5,159
9/30/2022	JASMINE STREET (211)	Named Storm - Ian	1	180	180
9/30/2022	SOUTH FLETCHER (102)	Named Storm - Ian	2	150	300

9/30/2022	PLANTATION ROADSIDE (110)	Named Storm - Ian	1	122	122
9/30/2022	BAILEY (311)	Named Storm - Ian	1	40	40
9/30/2022	JASMINE STREET (211)	Named Storm - Ian	1	66	66
11/5/2022	COAST CHIPS	Transmission	1	195	195
11/10/2022	SOUTH FLETCHER (102)	Named Storm - Nicole	103	139	14,317
11/10/2022	SOUTH FLETCHER (102)	Named Storm - Nicole	7	209	1,463
11/10/2022	BAILEY (311)	Named Storm - Nicole	9	122	1,098
11/10/2022	BAILEY (311)	Named Storm - Nicole	7	17	119
11/10/2022	CLINCH DRIVE (214)	Named Storm - Nicole	1	48	48
11/10/2022	JASMINE STREET (211)	Named Storm - Nicole	17	32	544
11/10/2022	SOUTH FLETCHER (102)	Named Storm - Nicole	4	53	212
11/10/2022	NECTARINE (210)	Named Storm - Nicole	12	52	624
11/11/2022	JASMINE STREET (211)	Named Storm - Nicole	4	60	240
11/11/2022	PLANTATION ROADSIDE (110)	Named Storm - Nicole	1	123	123

2022 NW Division Excluded Events					
Date	Feeder	Exclusion	Aff Cust	L	CMI
1/6/2022	GREENWOOD (9742)	Planned Outage	8	81	648
2/3/2022	SOUTH STREET (9854)	Planned Outage	15	37	555
2/10/2022	SOUTH STREET (9854)	Planned Outage	5	54	270
2/21/2022	SOUTH STREET (9854)	Planned Outage	5	14	70
3/31/2022	COTTONDALE (9866)	Tornado	12	125	1,500
3/31/2022	HWY 90W (9992)	Planned Outage	248	84	20,832
3/31/2022	ALTHA (9952)	Planned Outage	6	10	60
4/20/2022	COTTONDALE (9866)	Planned Outage	16	124	1,984
4/25/2022	COTTONDALE (9866)	Planned Outage	6	64	384
5/2/2022	COTTONDALE (9866)	Planned Outage	2	133	266
8/10/2022	INDIAN SPRINGS (9932)	Planned Outage	394	218	85,892
9/12/2022	ALTHA (9952)	Planned Outage	14	65	910
11/10/2022	COTTONDALE (9866)	Named Storm - Nicole	40	128	5,120
11/10/2022	BLOUNTSTOWN (9972)	Named Storm - Nicole	1	41	41
11/10/2022	GREENWOOD (9742)	Named Storm - Nicole	1	51	51
11/10/2022	SOUTH STREET (9854)	Named Storm - Nicole	1	110	110
11/10/2022	COTTONDALE (9866)	Named Storm - Nicole	1	147	147
11/10/2022	COTTONDALE (9866)	Named Storm - Nicole	12	88	1,056
11/10/2022	GREENWOOD (9742)	Named Storm - Nicole	3	124	372
11/10/2022	COLLEGE (9982)	Named Storm - Nicole	3	158	474
11/11/2022	INDIAN SPRINGS (9932)	Named Storm - Nicole	10	230	2,300
11/11/2022	GREENWOOD (9742)	Named Storm - Nicole	6	313	1,878
12/1/2022	HWY 90W (9992)	Planned Outage	1	25	25