GUNSTER
FLORIDA'S LAW FIRM FOR BUSINESS

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February 28, 2020

E-PORTAL FILING

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

Re: 20200000-OT – Undocketed Filings for 2020.

Dear Mr. Teitzman:

Attached for filing on behalf of Florida Public Utilities Company, please find the Company's 2020 Distribution Reliability Report for the prior period 2019, including the Annual Wood Pole Inspection Report, and updates of FPUC's Storm Hardening Plan and Ten Storm Preparedness Initiatives.

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,

Beth Keating
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
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March 1, 2020

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 2019 Annual Update. The update includes the Annual Distribution Service Reliability Report required by Rule 25-6.0455, the Annual Wood Pole Inspection Report required by Order No. PSC-06-0144, and updates of our Storm Hardening Plan and Ten Storm Preparedness Initiatives, as required by Order No. PSC-06-0781.

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

Sincerely,

Michael Cassel
Director, Business Management & Analysis
Florida Public Utilities Company

Attachments

Cc: Commission Clerk
Jeff Sylvester
Martin Cheryl
Buddy Shelley
Mark Cutshaw
Jorge Puentes

Florida Public Utilities Company

Reliability, Wood Pole Inspections, Storm Hardening Plan, and Storm Preparedness Initiatives

2019 Annual Update

March 1, 2020

Florida Public Utilities Company

**Reliability, Wood Pole Inspections,
Storm Hardening, and Storm Preparedness Initiatives**

Annual Update

Table of Contents

Introduction

This is the FPUC annual update. The update includes the Annual Distribution Service Reliability Report required by Rule 25-6.0455, the Annual Wood Pole Inspection Report required by Order No. PSC-06-0144, and updates of our Storm Hardening Plan and Ten Storm Preparedness Initiatives, as required by Order No. PSC-06-0781. The update is 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:

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

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

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

L-Bar = 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 <u>all</u> 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

CAUSES OF OUTAGE EVENTS – ACTUAL

Utility Name: **Florida Public Utilities Company- NE Division** Year: **2019**

Cause (a)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Defective Equipment	79	114.26	113.68
Vegetation	54	87.72	117.18
Animal	41	52.83	63.24
Unknown	30	100.18	80.90
Lightning	25	97.32	69.15
Hurricane Dorian	19	108.26	104.10
Other	11	82.23	85.51
Vehicle	10	157.59	223.45
Transmission	4	49.33	50.63
Substation	3	170.48	189.66
Other Weather	3	51.10	77.97
System Totals NE	**279**	**95.94**	**85.77**

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

CAUSES OF OUTAGE EVENTS – ADJUSTED

Utility Name: **Florida Public Utilities Company- NE Division** Year: **2019**

Cause (a)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Defective Equipment	79	114.26	113.68
Vegetation	54	87.72	117.18
Animal	41	52.83	63.24
Unknown	30	100.18	80.90
Lightning	25	97.32	69.15
Other	11	82.23	85.51
Vehicle	10	157.59	223.45
Other Weather	3	51.10	77.97
System Totals NE	**253**	**94.87**	**94.42**

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

CAUSES OF OUTAGE EVENTS – ACTUAL

Utility Name: **Florida Public Utilities Company- NW Division** Year: **2019**

Cause (a)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Vegetation	303	101.95	110.31
Lightning	149	118.50	109.31
Animal	143	69.33	53.98
Other Weather	127	142.29	117.25
Vehicle	122	90.11	92.83
Unknown	95	70.83	62.96
Defective Equipment	91	130.82	104.02
Other	53	90.58	63.42
Planned Outage	37	43.09	19.19
Tornado	13	223.22	117.17
Hurricane Dorian	3	59.27	48.41
Substation	3	91.50	91.54
System Totals: NW	**1,139**	**101.76**	**93.56**

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

CAUSES OF OUTAGE EVENTS – ADJUSTED

Utility Name: **Florida Public Utilities Company – NW Division** Year:**2019**

Cause (a)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Vegetation	303	101.95	110.31
Lightning	149	118.50	109.31
Animal	143	69.33	53.98
Other Weather	127	142.29	117.25
Vehicle	122	90.11	92.83
Unknown	95	70.83	62.96
Defective Equipment	91	130.82	104.02
Other	53	90.58	63.42
System Totals: NW	**1,083**	**102.46**	**99.03**

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

CAUSES OF OUTAGE EVENTS – ACTUAL

Utility Name: **Florida Public Utilities Company- FPUC Total** Year: **2019**

Cause (a)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Vegetation	357	99.80	112.39
Animal	184	65.65	57.01
Lightning	174	115.46	83.96
Defective Equipment	170	123.12	109.42
Vehicle	132	95.22	97.38
Other Weather	130	140.19	117.10
Unknown	125	77.87	72.62
Other	64	89.14	65.23
Planned Outage	37	43.09	19.19
Hurricane Dorian	22	101.58	71.95
Tornado	13	223.22	117.17
Substation	6	130.99	155.46
Transmission	4	49.33	50.63
System Totals FPUC	**1,418**	**100.60**	**89.73**

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

CAUSES OF OUTAGE EVENTS – ADJUSTED

Utility Name: **Florida Public Utilities Company- FPUC Total** Year: **2019**

Cause (a)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Vegetation	357	99.80	112.39
Animal	184	65.65	57.01
Lightning	174	115.46	83.96
Defective Equipment	170	123.12	109.42
Vehicle	132	95.22	97.38
Other Weather	130	140.19	117.10
Unknown	125	77.87	72.62
Other	64	89.14	65.23
System Totals FPUC	**1,336**	**101.02**	**97.67**

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

PART II

THREE PERCENT FEEDER LIST – ACTUAL

Utility Name: **Florida Public Utilities Company** Year: **2019**

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)						
311	Stepdown	Northeast	2,439	75	0	0	2,514	3	92.48	92.50	NO	2	N/A
9882	Blountstown	Northwest	829	182	0	0	1,011	6	91.50	91.54	NO	1	N/A

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

PART II

THREE PERCENT FEEDER LIST – ADJUSTED

Utility Name: **Florida Public Utilities Company** Year: **2019**

Primary Circuit Id. No. or Name (a)	Sub-station Origin (b)	Location (c)	Number of Customers						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)	Outage Events "N" (i)					
215	JL Terry	Northeast	1,510	125	0	0	1,635	2	48.00	48.00	NO	1	N/A
9782	Marianna	Northwest	20	5	0	0	25	3	140.42	139.89	NO	0	N/A

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

PART III

SYSTEM RELIABILITY INDICES – ACTUAL

Utility Name: **Florida Public Utilities Company** Year: **2019**

District or Service Area (a)	SAIDI (b)	CAIDI (c)	SAIFI (d)	MAIFIe (e)	CEMI5 (f)
NE Division	214.09	85.77	2.50	N/A*	N/A*
NW Division	333.85	93.56	3.57	N/A*	N/A*
System Averages	**264.45**	**89.73**	**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

SYSTEM RELIABILITY INDICES – ADJUSTED

Utility Name: **Florida Public Utilities Company** Year: **2019**

District or Service Area (a)	SAIDI (b)	CAIDI (c)	SAIFI (d)	MAIFIe (e)	CEMI5 (f)
NE Division	82.11	94.42	0.87	N/A*	N/A*
NW Division	282.64	99.03	2.85	N/A*	N/A*
System Averages	**166.42**	**97.67**	**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

2019 - 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
AMELIA ISLAND PARKWAY (312)	11	90.40	123.43	102,944	834	994		
BAILEY (311)	44	73.72	92.49	745,313	8,058	3,244		
BONNIEVIEW (310)	21	69.62	84.88	230,609	2,717	1,462		
CLINCH DRIVE (214)	19	80.68	65.59	43,686	666	1,533		
ELEVEN STREET (212)	23	88.73	209.07	49,550	237	2,041		
FIFTEENTH STREET (209)	17	129.74	81.96	8,688	106	2,206		
JASMINE STREET (211)	46	103.00	69.96	107,326	1,534	4,738		
NECTARINE (210)	20	133.54	211.50	59,643	282	2,671		
PARKWAY SOUTH (104)	1	34.30	34.30	34	1	34		
PLANTATION FIELDSIDE (111)	8	91.09	106.33	236,682	2,226	729		
PLANTATION ROADSIDE (110)	9	166.19	108.11	6,270	58	1,496		
SADLER NECTARINE SO.14TH (215)	13	101.10	50.94	173,092	3,398	1,314		
SOUTH FLETCHER (102)	43	90.24	201.89	129,005	639	3,881		
Totals	**275**	**95.79**	**91.20**	**1,892,844**	**20,756**	**26,342**	**113.16**	**1.24**

Total No. of Customers at end of 2019==> **16,727**

2019 - 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)	10	86.38	116.15	47,852	412	864		
BAILEY (311)	42	73.59	118.65	364,007	3,068	3,091		
BONNIEVIEW (310)	18	66.93	82.61	180,589	2,186	1,205		
CLINCH DRIVE (214)	17	81.16	41.97	20,899	498	1,380		
ELEVEN STREET (212)	21	87.66	210.00	49,350	235	1,841		
FIFTEENTH STREET (209)	15	124.77	80.33	8,354	104	1,872		
JASMINE STREET (211)	41	102.27	69.43	101,086	1,456	4,193		
NECTARINE (210)	19	125.78	208.68	56,553	271	2,390		
PARKWAY SOUTH (104)	1	34.30	34.30	34	1	34		
PLANTATION FIELDSIDE (111)	8	91.09	106.33	236,682	2,226	729		
PLANTATION ROADSIDE (110)	8	176.23	108.50	6,184	57	1,410		
SADLER NECTARINE SO.14TH (215)	13	101.10	50.94	173,092	3,398	1,314		
SOUTH FLETCHER (102)	40	91.99	202.98	128,686	634	3,680		
Totals	**253**	**94.87**	**94.42**	**1,373,371**	**14,546**	**24,001**	**82.11**	**0.87**

Total No. of Customers at end of 2019 ==> **16,727**

2019 - 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)	135	108.74	97.91	329,483	3,365	14,680		
BLOUNTSTOWN (9972)	20	101.37	62.77	32,513	518	2,027		
BRISTOL (9882)	80	86.79	91.13	538,287	5,907	6,944		
COLLEGE (9982)	125	105.73	90.07	298,948	3,319	13,217		
COTTONDALE (9866)	160	90.55	101.20	370,885	3,665	14,488		
DOGWOOD HEIGHTS (9722)	29	87.22	108.22	58,329	539	2,529		
FAMILY DOLLAR (9782)	4	129.08	139.26	10,027	72	516		
GREENWOOD (9742)	100	98.58	130.85	776,565	5,935	9,858		
HOSPITAL (9872)	56	105.60	96.14	252,280	2,624	5,914		
HWY 90E (9942)	53	108.99	107.55	118,737	1,104	5,777		
HWY 90W (9992)	53	92.08	60.19	109,128	1,813	4,880		
INDIAN SPRINGS (9932)	80	106.60	92.46	145,905	1,578	8,528		
INDUSTRIAL PARK (9752)	10	69.33	91.16	8,022	88	693		
PRISON (9732)	8	104.11	102.15	2,247	22	833		
RAILROAD (9512)	30	131.76	130.41	41,602	319	3,953		
SOUTH STREET (9854)	193	107.76	72.40	680,888	9,404	20,798		
SUB. BLOUNTSTOWN (18)	3	91.50	91.54	277,463	3,031	275		
Grand Total	**1,139**	**101.76**	**93.56**	**4,051,308**	**43,303**	**115,910**	**333.85**	**3.57**

Total No. of Customers at end of 2019==> **12,135**

2019 - 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)	127	113.10	101.29	321,915	3,178	14,363		
BLOUNTSTOWN (9972)	20	101.37	62.77	32,513	518	2,027		
BRISTOL (9882)	73	84.33	85.13	459,257	5,395	6,156		
COLLEGE (9982)	119	106.85	77.60	244,204	3,147	12,715		
COTTONDALE (9866)	157	89.28	101.07	367,801	3,639	14,017		
DOGWOOD HEIGHTS (9722)	28	88.29	110.39	57,069	517	2,472		
FAMILY DOLLAR (9782)	4	129.08	139.26	10,027	72	516		
GREENWOOD (9742)	96	100.59	145.94	768,956	5,269	9,656		
HOSPITAL (9872)	52	103.42	93.85	243,079	2,590	5,378		
HWY 90E (9942)	53	108.99	107.55	118,737	1,104	5,777		
HWY 90W (9992)	47	98.64	114.47	98,104	857	4,636		
INDIAN SPRINGS (9932)	78	108.08	92.74	144,020	1,553	8,431		
INDUSTRIAL PARK (9752)	9	69.25	91.40	7,952	87	623		
PRISON (9732)	8	104.11	102.15	2,247	22	833		
RAILROAD (9512)	29	135.16	164.12	38,896	237	3,920		
SOUTH STREET (9854)	183	106.23	79.87	515,014	6,448	19,441		
Grand Total	**1,083**	**102.46**	**99.03**	**3,429,792**	**34,633**	**110,961**	**282.64**	**2.85**

Total No. of Customers at end of 2019==> **12,135**

FPUC 2019 – Reliability Indicators and Analysis

FPUC managed to improve one reliability indicator in 2019. Both NE and NW Divisions continue to invest in its storm hardening initiatives, infrastructure improvements and system upgrades which will continue to generate reliability improvements in the future. CADI improved 8.40% from 106.63 in 2018 to 97.67 in 2019. The other indicators did not show improvement. SAIDI increased 7.82% from 154.35 in 2018 to 166.42 in 2019. L-BAR increased 17.03% from 86.32 in 2018 to 101.02 in 2019. SAFI increased 17.24% from 1.45 in 2018 to 1.70 in 2019 However; both SAIFI and SAIDI improved 12.82% and 10.15% respectively from their 5 year peak in 2016.

As FPU reviews its five year reliability indicator trends, averages and outage causes, it notes that 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. One of the major contributors to this year's increase in the reliability indicators was the remaining effects of last year's Hurricane Michael. The NW Division saw an increased number of outages in several categories. For example; in the vehicles category the increase was 139.22% from 51 outages in 2018 to 122 in 2019. This increase was mostly caused by many low cable and telephone wires being dragged by debris hauling vehicles which resulted in broken poles, conductors and damaged equipment.

FPUC will continue to monitor all reliability indices and outage causes to adjust and improve current reliability programs. In 2020, FPU is planning to continue implementing its lateral protection strategy by installing cutout-mounted recloser units to continue to improve reliability.

FPUC 2019 – Description of Excluded Events for Named Storms, Transmission, Distribution, and Substations

Named Storms and Tornados

The NW Division was demolished by Hurricane Michael in 2018 which continued to impact outages in 2019. The NW territory was also impacted by one tornado in 2019. The NE Division was slighted impacted by Hurricane Dorian in 2019.

Transmission and Substation

In 2019 the NE Division experienced several 69KV transmission and substation outages which were due to equipment failures and relay maintenance testing. 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.

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The NW Division experienced several substation outages in 2019 at the Blountstown substation which were caused by Gulf Power's transmission lines and the City of Blountstown's breakers. These outages are excluded in the table below.

The NE and NW Divisions also had several planned outages to perform maintenance to different sections of the distribution system. These outages are noted below in the Excluded Event Tables. In all cases, FPUC promptly dispatched crews to restore power to customers.

2019 NE Division Excluded Events					
Date	Feeder	Exclusion	Aff Cust	L	CMI
5/28/2019	BAILEY (311)	Substation	2490	111	276,639
5/28/2019	AMELIA ISLAND PARKWAY (312)	Substation	422	131	55,092
7/26/2019	AIP (315)	Substation	2752	270	742,490
8/22/2019	AIP (315)	Transmission	5525	52	289,786
8/22/2019	BAILEY (311)	Transmission	2500	42	104,667
9/4/2019	JASMINE STREET (211)	Hurricane Dorian	14	216	3,029
9/4/2019	JASMINE STREET (211)	Hurricane Dorian	6	117	704
9/4/2019	JASMINE STREET (211)	Hurricane Dorian	1	56	56
9/4/2019	BONNIEVIEW (310)	Hurricane Dorian	1	95	95
9/4/2019	SOUTH FLETCHER (102)	Hurricane Dorian	3	59	177
9/4/2019	CLINCH DRIVE (214)	Hurricane Dorian	11	9	95
9/4/2019	ELEVEN STREET (212)	Hurricane Dorian	1	64	64
9/4/2019	BONNIEVIEW (310)	Hurricane Dorian	525	94	49,586
9/4/2019	SOUTH FLETCHER (102)	Hurricane Dorian	1	33	33
9/4/2019	NECTARINE (210)	Hurricane Dorian	11	281	3,090
9/4/2019	BONNIEVIEW (310)	Hurricane Dorian	5	68	339
9/4/2019	FIFTEENTH STREET (209)	Hurricane Dorian	1	214	214
9/4/2019	CLINCH DRIVE (214)	Hurricane Dorian	157	145	22,692
9/4/2019	JASMINE STREET (211)	Hurricane Dorian	56	42	2,337
9/5/2019	ELEVEN STREET (212)	Hurricane Dorian	1	136	136
9/5/2019	PLANTATION ROADSIDE (110)	Hurricane Dorian	1	86	86
9/5/2019	JASMINE STREET (211)	Hurricane Dorian	1	113	113
9/5/2019	SOUTH FLETCHER (102)	Hurricane Dorian	1	109	109
9/5/2019	FIFTEENTH STREET (209)	Hurricane Dorian	1	120	120
11/14/2019	JL TERRY (313)	Transmission	7185	52	373,380
11/14/2019	AIP (315)	Transmission	5535	51	282,562

2019 NW Division Excluded Events					
Date	Feeder	Exclusion	Aff Cust	L	CMI
1/11/2019	COTTONDALE (9866)	Planned Outage	9	51	458
1/21/2019	SOUTH STREET (9854)	Planned Outage	1	87	87
1/23/2019	HOSPITAL (9872)	Planned Outage	1	78	78
1/29/2019	SUB. BLOUNTSTOWN (18)	Substation	1015	91	92,348
2/4/2019	ALTHA (9952)	Planned Outage	45	9	405
2/5/2019	ALTHA (9952)	Planned Outage	5	7	35
2/13/2019	HWY 90W (9992)	Planned Outage	5	24	120
2/15/2019	GREENWOOD (9742)	Planned Outage	13	27	351
2/20/2019	SOUTH STREET (9854)	Planned Outage	1	55	55
3/3/2019	SOUTH STREET (9854)	Tornado	71	458	32,527
3/3/2019	HWY 90W (9992)	Tornado	23	102	2,336
3/3/2019	INDUSTRIAL PARK (9752)	Tornado	1	70	70
3/3/2019	COLLEGE (9982)	Tornado	145	374	54,278
3/3/2019	HOSPITAL (9872)	Tornado	23	382	8,795
3/3/2019	SOUTH STREET (9854)	Tornado	39	236	9,220
3/3/2019	COTTONDALE (9866)	Tornado	5	346	1,731
3/3/2019	SOUTH STREET (9854)	Tornado	17	309	5,255
3/3/2019	BRISTOL (9882)	Tornado	72	18	1,296
3/3/2019	BRISTOL (9882)	Tornado	84	317	26,632
3/3/2019	BRISTOL (9882)	Tornado	220	186	40,858
3/3/2019	SOUTH STREET (9854)	Tornado	1043	37	38,661
3/3/2019	SOUTH STREET (9854)	Tornado	339	66	22,295
3/20/2019	RAILROAD (9512)	Planned Outage	82	33	2,706
3/27/2019	COLLEGE (9982)	Planned Outage	3	16	48
4/2/2019	HWY 90W (9992)	Planned Outage	7	62	434
4/4/2019	SOUTH STREET (9854)	Planned Outage	30	46	1,391
4/11/2019	COLLEGE (9982)	Planned Outage	2	16	32
4/13/2019	DOGWOOD HEIGHTS (9722)	Planned Outage	22	57	1,260
4/24/2019	SOUTH STREET (9854)	Planned Outage	340	14	4,675
5/5/2019	GREENWOOD (9742)	Planned Outage	14	128	1,789
5/14/2019	HOSPITAL (9872)	Planned Outage	1	44	44
5/20/2019	SUB. BLOUNTSTOWN (18)	Substation	1005	70	70,350
5/20/2019	BRISTOL (9882)	Planned Outage	1	93	93
5/20/2019	BRISTOL (9882)	Planned Outage	52	45	2,324
5/21/2019	ALTHA (9952)	Planned Outage	45	50	2,270
5/21/2019	ALTHA (9952)	Planned Outage	27	38	1,029
5/23/2019	ALTHA (9952)	Planned Outage	11	20	220
6/12/2019	BRISTOL (9882)	Planned Outage	75	101	7,604
6/13/2019	ALTHA (9952)	Planned Outage	25	112	2,790
6/20/2019	INDIAN SPRINGS (9932)	Planned Outage	1	20	20
7/2/2019	COLLEGE (9982)	Planned Outage	3	81	244
7/2/2019	GREENWOOD (9742)	Planned Outage	3	39	117
7/4/2019	HWY 90W (9992)	Planned Outage	904	9	7,744

7/15/2019	BRISTOL (9882)	Planned Outage	8	28	224
7/15/2019	GREENWOOD (9742)	Planned Outage	636	8	5,353
7/24/2019	HWY 90W (9992)	Planned Outage	8	43	344
7/31/2019	ALTHA (9952)	Planned Outage	26	25	655
8/6/2019	COLLEGE (9982)	Planned Outage	18	8	135
8/6/2019	COLLEGE (9982)	Planned Outage	1	6	6
9/16/2019	HWY 90W (9992)	Planned Outage	9	5	46
10/19/2019	COTTONDALE (9866)	Hurricane Dorian	12	75	895
10/19/2019	ALTHA (9952)	Hurricane Dorian	3	55	165
10/19/2019	SOUTH STREET (9854)	Hurricane Dorian	1075	48	51,707
11/14/2019	INDIAN SPRINGS (9932)	Planned Outage	24	78	1,865
12/3/2019	HOSPITAL (9872)	Planned Outage	9	32	284
12/22/2019	SUB. BLOUNTSTOWN (18)	Substation	1011	114	114,765

II. Wood Pole Inspections

Introduction

To comply with FPSC Order No. PSC-06-0144, in 2008 Florida Public Utilities Co. (FPUC) implemented an 8-year cycle wood pole inspection program. The most current edition of the National Electric Safety Code (NESC) serves as a basis for the design of replacement poles for wood poles that fail inspection. Grade 'B' construction, as described in Section 24 of the NESC, has been adopted as the standard of construction for designing new pole installations and the replacement of reject poles in each FPUC Electric Division (NE & NW). Extreme wind loading, as specified in rule 250C and figure 250-2(d) of the NESC, has been adopted. Therefore, 130 mph for the NE Division (Fernandina) and 120 mph for NW Division (Marianna) are used for extreme wind loading.

Wood pole inspections are performed by a qualified wood pole inspection contractor. Inspection results are summarized for each division using the Wood Pole Inspection Reports included in this section. Also included are bar charts and tables that show inspection results summary, failure rates, and pole ages.

The number of inspections may vary from year-to-year based upon a variety of factors. FPUC will complete all required wood pole inspections during the eight year wood pole inspection cycle. In 2016 FPUC began the first year of the second cycle for both divisions.

Inspection Process

The first inspection is a visual inspection to determine if there are any defects that require pole replacement. If the visual inspection indicates that the pole is not suited for continued use, it is rejected by the contractor and reported to FPUC for follow-up.

If the pole passes visual inspection, the pole is sound and bore tested to determine the internal condition of the pole. If the sound and bore inspection indicates that the pole is not suited for continued use, the pole is rejected by the contractor and reported to FPUC for follow-up.

If the pole passes the sound and bore test, the pole is excavated a minimum of 18 inches in depth and tested. If this test indicates the pole is suitable for continued service, the pole is treated and backfilled. If this test indicates the pole is not suited for continued use, it is rejected by the contractor and reported to FPUC for follow-up.

Beginning in 2014, the inspections were performed with modified criteria for CCA pole inspections. CCA poles less than 21 years of age are visually inspected, sounded, and selectively bored. Boring is performed only if internal decay is suspected. Unless a pole failed sound and bore, a full excavation is not performed on these poles.

Strength and Loading Assessment

The contractor performs Strength Assessment tests on selected poles to compare the current measured circumference to the original circumference of the pole. The effective circumference of the pole is determined to ensure that the current condition of the pole meets the requirements

of NESC Section 26 “Strength Requirements”. Beginning in 2010, pole inspection criteria were enhanced to include LoadCalc, a program used by the contractor to determine pole loading, analysis on poles with remaining strength at or below 67%. If the ‘required’ remaining strength resulting from the combined strength and load analysis indicates that the pole is not suited for continued use, the contractor rejects the pole and reports it to FPUC for follow-up.

Poles having 3rd party attachments of ½” or larger in diameter are also assessed for loading with LoadCalc by the contractor. When conducting the Loading Assessment, span lengths, attachment heights, wire sizes, and 3rd party attachments are analyzed to estimate pole loading. Poles identified by the contractor as being loaded at or above 100% are re-evaluated by FPUC engineers using a program called PoleForeman. NESC Grade B construction & 60 mph winds provide the basis for calculations. Poles loaded at or above 100% following re-evaluation are replaced. Additional discussion about 3rd party attachments is provided in Storm Preparedness Initiatives section under Initiative #2, “Joint Use Pole Attachment Audit”.

Post Inspection Follow-Up

The contractor provides FPUC with follow up reports.

Poles Needing Maintenance Report: Maintenance items are provided to FPUC construction employees. The poles are re-inspected and assigned a priority based upon potential hazard to public and employee safety. Repairs are then made in order of priority.

Reject Poles Report: FPUC policy is to replace all reject poles in lieu of bracing "restorable" reject poles. Poles are prioritized for replacement using the reject severity level awarded by the inspector as the basis. Each pole is analyzed by FPUC engineers. A computer program called PoleForeman is used to make sure the new poles meet the storm hardening criteria discussed in the first paragraph of this section.

The list of reject poles is provided to 3rd party attachers so they may give feedback concerning planned attachments that require increased pole size for added loading.

Summary

FPUC collects and stores pole inspection data upon completion of annual wood pole inspections. The contractor provides FPUC with wood pole inspection data that includes pole location, size, class, test results, and general comments. The contractor provides inspection summary data via an On-line Data Center that allows FPUC to create specific reports and view detailed or summary information. The On-line Data Center is essential for post inspection follow up.

The inspection contractor is required to perform quality control assessments of their work to ensure FPUC pole inspection requirements are being met. The contractor provides documentation that these assessments have taken place.

Florida Public Utilities Company - NE Division
Annual Wood Pole Inspection Report
Year #4 of 2nd 8 Year Cycle
(Inspection Year 2019)

a	b	C	d	e	f	g	h	i	j	k	l	m	n	o
Total # of wood poles in NE Division	# of pole inspections planned for this year	Backlog included in plans for this year	# of pole inspections completed this year	# of poles failing inspection this year	% failure rate this year	# failures replaced this year	# failures repaired this year	Total # of failures remaining to be replaced	Total # of failures remaining to be repaired	# of poles requiring maint. follow-up this year	# of poles overloaded this year	Total # of poles inspected in 8 yr cycle to date	Total % of poles inspected in 8 yr cycle to date	# of pole inspections planned next year
5,083	**1,374**	**2**	**1,374**	**123**	**9%**	**32**	**0**	**91**	**0**	**493**	**0**	**2,497**	**49%**	**680**

If d < b, provide explanation	2018 poles were scheduled to be inspected in October 2018. They were not due to Hurricane Michael
If g + h < e, provide explanation	
Additional Information	Poles scheduled to be inspected in 2018 & 2019 were inspected in 2019 to get back on schedule.

Florida Public Utilities Company - NW Division
Annual Wood Pole Inspection Report
Year #4 of 2nd 8 year Cycle
(Inspection Year 2019)

a	b	C	d	e	f	g	h	i	j	k	l	m	n	o
Total # of wood poles in NW Division	# of pole inspections planned for this year	Backlog included in plans for this year	# of pole inspections completed this year	# of poles failing inspection this year	% failure rate this year	# failures replaced this year	# failures repaired this year	Total # of failures remaining to be replaced	Total # of failures remaining to be repaired	# of poles requiring maint. follow-up this year	# of poles overloaded this year	Total # of poles inspected in 8 yr cycle to date	Total % of poles inspected in 8 yr cycle to date	# of pole inspections planned next year
21,563	**6,041**	**77**	**6,041**	**399**	**6.5%**	**10**	**0**	**471**	**0**	**0**	**0**	**11,501**	**53.0%**	**3,000**

If d < b, provide explanation	2018 poles were scheduled to be inspected during 3rd quarter. However, they were not due to Hurricane Michael
If g + h < e, provide explanation	
Additional Information	Poles scheduled to be inspected in 2018 were added to the 2019 inspections and completed this year to be back on schedule

III. Storm Hardening Update

Introduction

This is the required annual update of the FPUC Storm Hardening Plan. Wood pole inspection is addressed in more detail in Section II of this update. More extensive updates for the ten storm preparedness initiatives can be found in Section IV.

Compliance with NESC Requirements:

The National Electric Safety Code (NESC) serves as a basis for the design and construction of new and replacement FPUC facilities. Pursuant to subsection 25-6.0345 (2), F.A.C., all FPUC facilities were installed in accordance with NESC requirements in effect at the time of their installation. To enhance FPUC storm hardening efforts, more stringent Grade 'B' construction, as described in Section 24 of the 2012 edition of the NESC, has been adopted as the standard for the design and installation of all future new and replacement poles in each FPUC Electric Division (NE & NW).

Extreme Wind Loading:

Extreme wind loading, as specified in rule 250C and figure 250-2(d) of the 2012 edition of the NESC, has been adopted, as follows: 130 mph wind speed for wind loading in NE Division (Amelia Island) and 120 mph wind speed for wind loading in NW Division (Marianna).

Mitigation of Damage Due to Storm Surge and Flooding:

FPUC continues to develop specifications for mitigating damage to underground and overhead distribution and transmission facilities caused by flooding and storm surges. Additionally, FPUC is participating along with other investor owned, cooperative, and municipal electric utilities in the Public Utility Research Center (PURC) research regarding hurricane winds and storm surge within the state.

FPUC transmission facilities are located in the Northeast (Florida) Division only. Transmission lines constructed near and across coastal waterways were originally designed to meet, at a minimum, NESC requirements for those applications. Where necessary, foundations and casings were used to stabilize the structures due to the soil conditions.

Some overhead distribution lines in both divisions are subject to storm surges and flooding. Lines located near the coast or inland waterways that are subject to storm surges or flooding are continually evaluated. Additional supporting mechanisms are installed when practicable. This includes storm guys or pole bracing, as needed. Storm guys or bracing are being placed so that additional support is achieved perpendicular to the distribution line. Potentially affected lines that have reclosers, capacitors, or regulators that require electronic controls have associated controls mounted above maximum anticipated surge or flood levels.

Underground distribution lines subject to potential storm surges and flooding are mainly located in Northeast Florida Division. Storm hardening specifications include the use of reinforced concrete pads with legs on each corner that are poured approximately two feet into the ground to

provide additional stability. Equipment is securely attached to the pad. Underground distribution lines are placed in conduit but are not typically encased in concrete. Future installations of underground distribution feeders will be evaluated based upon potential exposure to storm surges and flooding. Additional information and conclusions from research performed by the PURC will be included in the evaluation. If it is determined that storm surges could cause excessive damage, the installation may be encased in concrete ducts if feasible and validated by research.

Placement of New and Replacement Facilities:

Accessible locations are necessary for the efficient and safe installation and maintenance of FPUC facilities. Therefore, facilities are placed along public rights of way or located on private easements that are readily accessible from public streets. Placement of facilities along rear lot lines will not occur except in certain commercial applications were easily accessible concrete or asphalt driveways are located at the rear of the development or in residential neighborhoods with alleyways designed specifically for the purpose of installing utility services behind homes.

Deployment Strategy:

FPUC has a fully implemented storm hardening strategy. Significant areas of note for 2019 include:

1. During 2019, each division was scheduled to complete the fourth year of the second, eight year cycle wood pole inspection program. However, due to 2018's Hurricane Michael, this inspection was completed in 2019. Specific results, when available, are reported in Section II - Wood Pole Inspections.
2. FPUC continues its Vegetation Management Program that includes trimming main feeders every three years, laterals every six years, and addressing danger trees as soon as possible. Additional information about the FPUC Vegetation Management Program can be found in Section IV - Storm Preparedness Initiatives, Initiative #1 - Vegetation Management Program for Distribution Circuits.
3. Pole loading inspections and follow up is performed annually in both divisions as part of the Wood Pole Inspection Program. More information about pole loading inspections and follow up can be found in Section II - Wood Pole Inspections, and Section IV - Storm Preparedness Initiatives, Initiative #2 - Joint Use Pole Attachment Audit.
4. FPUC owned transmission poles are only located in the NE Division. Details about climbing inspections of transmission poles can be found in Section IV - Storm Preparedness Initiatives, Initiative #3 - Six Year Transmission Structure Inspection Program.
5. Section IV - Storm Preparedness Initiatives, Initiative #4 - Storm Hardening of Existing Transmission Structures contains additional information about transmission structure storm hardening.
6. New underground facilities are designed to mitigate damage from storm surges and flooding.
7. FPUC will continue to place facilities on public rights of way and, if this is not possible, will secure private easements to make sure facilities are easily accessible.
8. Performed joint use audit during the last quarter of 2016. No audits were scheduled for 2019.

Communities and Areas Affected by Electric Infrastructure Improvements:

The majority of the items listed in the deployment strategy affect all areas of the FPUC electric service territory. The intent is to make sure both divisions benefit from these strategies. Transmission inspection and transmission storm hardening programs only affect the Northeast Florida Division since there are no FPUC owned transmission facilities in the Northwest Florida Division at this time. Constructing distribution lines to comply with the NESC extreme wind loading standards is beneficial to both divisions and the communities they serve.

Upgrading of Joint Use Facilities

Both the NE and NW Divisions have continued to replace reject poles. Many of these reject poles have joint use attachments. New replacement poles were designed to accommodate joint use facilities and were installed in accordance with criteria found in the current edition of NESC guidelines for extreme wind loading conditions. The new installations were coordinated with joint users.

IV. Storm Preparedness Initiatives

This is the FPUC required annual update of the ten storm preparedness initiatives.

Initiative #1 - Vegetation Management Programs for Distribution Circuits

FPUC continues to work towards the accomplishment of a three year vegetation management cycle on main feeders and a six year vegetation management cycle on laterals on the system. FPUC is studying possible changes to its vegetation management cycle to determine if a more efficient and cost saving trim cycle is feasible.

The program includes the following:

1. Three year vegetation management cycle on all main feeders.
2. Six year vegetation management cycle on all laterals.
3. Increased participation with local governments to address improved overall reliability due to tree related outages.
4. Information made available to customers regarding the maintenance and placement of trees.

Based upon current tree trimming crew levels, the Company will make reasonable efforts to address the following:

1. Annual inspection of main feeders to critical infrastructure prior to the storm season to identify and perform the necessary trimming.
2. Address danger trees located outside the normal trim zone and located near main feeders as reported.

Performance Metrics: Adjusted data includes only activities that are budgeted and included in the Company's filed vegetation management plan. Unadjusted (actual) data includes all performance data, such as, hurricane performance and all other vegetation caused outage events FPUC believes to be excludable pursuant to 25-6.0455, F.A.C. The difference between unadjusted data and adjusted data are the storm reliability performance metrics.

In 2014 FPUC initiated a new cycle of its 3 year feeder and 6 year lateral vegetation management program. Data from completed and future cycles will be analyzed to see if there are opportunities for improvements.

FPUC Consolidated Vegetation Management Performance Metrics – 2019

	Feeders			Laterals		
	Unadjusted	Adjusted	Diff.	Unadjusted	Adjusted	Diff.
(A) Number of Outages	1	1	0	356	356	0
(B) Customer Interruptions	2,511	2,511	0	8,833	8,833	0
(C) Miles Cleared	45.97	45.97	0	77.04	77.04	0
(D) Remaining Miles (Note 1, 2 & 3)	36.57	36.57	0	-98.16	-98.16	0
(E) Outages per Mile [A ÷ (C + D)]	0.0121	0.0121	0	2.03	2.03	0.00
(F) Vegetation CI per Mile [B ÷ (C + D)]	30.42	30.42	0	50.42	50.42	0.00
(G) Number of Hotspot trims	144	144	0	NA	NA	NA
(H) All Vegetation Management Costs	$1,106,441	$1,106,441	0	(Note 4)	(Note 4)	(Note 4)
(I) Customer Minutes of Interruption	312,536	312,536	0	962,386	962,386	0
(J) Outage restoration costs	(Note 5)	(Note 5)	0	NA	NA	NA
(K) Vegetation Budget (current year)	$1,062,686	$1,062,686	$-	NA	NA	NA
(L) Vegetation Goal (current year)	$1,062,686	$1,062,686	$-	NA	NA	NA
(M) Vegetation Budget (next year)	$1,185,390	$1,185,390	$-	NA	NA	NA
(N) Vegetation Goal (next year)	$1,185,390	$1,185,390	$-	NA	NA	NA
(O) Trim-Back Distance	(Note 6)	(Note 6)	0	(Note 6)	(Note 6)	NA

Danger Trees (FPUC Totals) – Additional Questions

a) Number of danger trees removed? 2307
b) Expenditures on danger tree removal? $461,400 (Estimated $200/Tree)
c) Number of request for removals that were denied? 0
d) Avoided CI with danger trees removed (estimate)? N/A
e) Avoided CMI with danger trees removed (estimate)? N/A

Note 1: Miles cleared in 2019 include total miles of main feeders and laterals and hot spot trimming.
Note 2: NE and NW Division uses GIS system to obtain miles of feeders and laterals.
Note 3: Remaining miles negative numbers indicate additional trimming beyond the required 3 and 6 year cycles.
Note 4: Vegetation management costs have not been separated between main feeders and laterals.
Note 5: Outage restoration costs have not been historically documented.
Note 6: Distribution is 10 feet and transmission (138KV is 30 feet and 69KV is 15 feet)

NE Division Vegetation Management Performance Metrics – 2019

	Feeders			Laterals		
	Unadjusted	Adjusted	Diff.	Unadjusted	Adjusted	Diff.
(A) Number of Outages	1	1	0	53	53	0
(B) Customer Interruptions	2,511	2,511	0	924	924	0
(C) Miles Cleared (Notes 1 & 2)	8.56	8.56	0	16.45	16.45	0
(D) Remaining Miles (Note 2 & 3)	-3.08	-3.08	0	-68.50	-68.50	0
(E) Outages per Mile [A ÷ (C + D)]	0.0859	0.0859	0	0.6239	0.6239	0
(F) Vegetation CI per Mile [B ÷ (C + D)]	215.72	215.72	0	10.87	10.87	0
(G) Number of Hotspot trims	4	4	0	NA	NA	NA
(H) All Vegetation Management Costs	$336,647	$336,647	0	(Note 4)	(Note 4)	(Note 4)
i(I) Customer Minutes of Interruption	312,536	312,536	0	89,961	89,961	0
(J) Outage restoration costs	(Note 5)	(Note 5)	NA	NA	NA	NA
(K) Vegetation Budget (current year)	$266,663	$266,663	$-	NA	NA	NA
(L) Vegetation Goal (current year)	$266,663	$266,663	$-	NA	NA	NA
(M) Vegetation Budget (next year)	$285,390	$285,390	$-	NA	NA	NA
(N) Vegetation Goal (next year)	$285,390	$285,390	$-	NA	NA	NA
(O) Trim-Back Distance	(Note 6)	(Note 6)	0	(Note 6)	(Note 6)	NA

Danger Trees (NE Division) – Additional Questions

a) Number of danger trees removed? 2
b) Expenditures on danger tree removal? $400(Estimated $200/Tree)
c) Number of request for removals that were denied? 0
d) Avoided CI with danger trees removed (estimate)? N/A
e) Avoided CMI with danger trees removed (estimate)? N/A

Note 1: Miles cleared in 2019 include total miles of main feeders and laterals and hot spot trimming.
Note 2: NE Division uses GIS system to obtain miles of feeders and laterals.
Note 3: Remaining miles negative numbers indicate additional trimming beyond the required 3 and 6 year cycles.
Note 4: Vegetation management costs have not been separated between main feeders and laterals.
Note 5: Outage restoration costs have not been historically documented.
Note 6: Distribution is 10 feet and transmission (138KV is 30 feet and 69KV is 15 feet)

NW Division Vegetation Management Performance Metrics – 2019

	Feeders			Laterals		
	Unadjusted	Adjusted	Diff.	Unadjusted	Adjusted	Diff.
(A) Number of Outages	0	0	0	303	303	0
(B) Customer Interruptions	0	0	0	7,909	7,909	0
(C) Miles Cleared (note 1 & 2)	37.41	37.41	0	60.59	60.59	0
(D) Remaining Miles	39.65	39.65	0	-29.66	-29.66	0
(E) Outages per Mile [A ÷ (C + D)]	0	0	0	3.36	3.36	0
(F) Vegetation CI per Mile [B ÷ (C + D)]	0	0	0	87.63	87.63	0
(G) Number of Hotspot trims	140	140	0	NA	NA	NA
(H) All Vegetation Management Costs	$769,795	$769,795	0	(Note 4)	(Note 4)	
(I) Customer Minutes of Interruption	0	0	0	872,425	872,425	0
(J) Outage restoration costs	(Note 5)	(Note 5)	NA	NA	NA	NA
(K) Vegetation Budget (current year)	$796,023	$796,023	0	NA	NA	NA
(L) Vegetation Goal (current year)	$796,023	$796,023	0	NA	NA	NA
(M) Vegetation Budget (next year)	$900,000	$900,000	0	NA	NA	NA
(N) Vegetation Goal (next year)	$900,000	$900,000	0	NA	NA	NA
(O) Trim-Back Distance	10	10	NA	10	10	NA

Danger Trees (NW Division) – Additional Questions

a) Number of danger trees removed? 2305
b) Expenditures on danger tree removal? $461,000 (Estimated $200/Tree)
c) Number of request for removals that were denied? 0
d) Avoided CI with danger trees removed (estimate)? N/A
e) Avoided CMI with danger trees removed (estimate)? N/A

Note 1: Miles cleared in 2019 include total miles of main feeders and laterals and hot spot trimming.
Note 2: NW Division uses GIS system to obtain miles of feeders and laterals.
Note 4: Vegetation management costs have not been separated between main feeders and laterals.
Note 5: Outage restoration costs have not been historically documented.

NW TREE TRIM SCHEDULE – MAIN FEEDERS
2020 – 2022

2020
1. OCB#9932: Indian Springs Feeder
2. OCB#9752: Industrial Park Feeder
3. OCB#9922: Dogwood Heights Feeder
4. OCB#9732: Prison Feeder
5. OCB# 9782: HWY 90 West Feeder

2021
1. OCB#9866: Cottondale Feeder
2. OCB#9854: South Street Feeder
3. OCB#9512: Railroad Feeder
4. OCB#9992: HWY 90 East Feeder
5. OCB#9982: College Feeder
6. OCB#9742: Greenwood/Malone Feeder

2022
1. OCB#9972: Blountstown Feeder
2. OCB#9882: Bristol Feeder
3. OCB#9952: Altha Feeder
4. OCB#9872: Hospital Feeder
5. OCB#9782: Family Dollar Feeder

NW TREE TRIM SCHEDULE – LATERALS
2020 – 2025

2020
1. OCB#9932: Indian Springs Feeder
2. OCB#9722: Dogwood Heights Feeder

2021
1. OCB#9982: College Feeder
2. OCB#9942: HWY 90 East Feeder
3. OCB#9512: Railroad Feeder

2022
1. OCB#9782: Family Dollar Feeder
2. OCB#9872: Hospital Feeder

2023
1. OCB#9752: Industrial Park Feeder
2. OCB#9732: Prison Feeder
3. OCB#9782: HWY 90 West Feeder

2024
1 OCB#9866: Cottondale Feeder
2. OCB#9742: Greenwood/Malone Feeder
3. OCB#9854: South Street Feeder

2025
1. OCB#9972: Blountstown Feeder
2. OCB#9952: Bristol Feeder
3. OCB# 9952: Altha Feeder

NE DIVISION - TREE TRIM SCHEDULE – MAIN FEEDERS
2020 – 2022

2020
1. Feeder #802 (138KV)
2. Feeder #803 (138KV)
3. Feeder #209
4. Feeder #102
5. Feeder #110
6. Feeder #111

2021
1. Feeder #211
2. Feeder #313 (69KV)
3. Feeder #201 (69KV)
4. Feeder #315 (69KV)
5. Feeder #202 (69KV)
6. Feeder #212
7. Feeder #310

2022
1. Feeder #311
2. Feeder #104
3. Feeder #210
4. Feeder #215
5. Feeder #214

NE DIVISION - TREE TRIM SCHEDULE – LATERALS
2020 – 2025

2020
1. Feeder #215
2. Feeder #210

2021
1. Feeder #214
2. Feeder #102

2022
1. Feeder #209
2. Feeder #104

2023
1. Feeder #110
2. Feeder #111

2024
1. Feeder #211
2. Feeder #212

2025
1. Feeder #310
2. Feeder #311

2019 FPUC NE Division - D&T Vegetation Management*										
Feeder #	Main Feeder		Feeder Laterals		Main Feeder		Feeder Laterals		TOTALS	
	OH (feet)	UG (feet)	OH (feet)	UG (feet)	OH (miles)	UG (miles)	OH (miles)	UG (miles)	OH (miles)	UG (miles)
312	0.00	8,620	0.00	200	0.00	1.63	0.00	0.04	0.00	1.67
311	27,672	260	52,529	95,681	5.24	0.05	9.95	18.12	15.19	18.17
310	16,080	1,485	32,580	51,837	3.05	0.28	6.17	9.82	9.22	10.10
209	25,423	1,062	22,253	37,236	4.81	0.20	4.21	7.05	9.03	7.25
210	9,990	2,245	27,961	6,700	1.89	0.43	5.30	1.27	7.19	1.69
211	13,992	225	60,222	23,852	2.65	0.04	11.41	4.52	14.06	4.56
212	17,477	110	55,966	8,505	3.31	0.02	10.60	1.61	13.91	1.63
214	14,935	305	22,435	3,491	2.83	0.06	4.25	0.66	7.08	0.72
215	11,264	1,250	14,549	38,850	2.13	0.24	2.76	7.36	4.89	7.59
102	19,249	2,207	37,931	114,746	3.65	0.42	7.18	21.73	10.83	22.15
104	1,438	6,799	0	51,595	0.27	1.29	0.00	9.77	0.27	11.06
110	10,292	0	7,762	163,381	1.95	0.00	1.47	30.94	3.42	30.94
111	10,354	6,020	7,990	90,453	1.96	1.14	1.51	17.13	3.47	18.27
Dist. Totals	**178,166**	**30,588**	**342,178**	**686,527**	**33.74**	**5.79**	**64.81**	**130.02**	**98.55**	**135.82**
69KV Line									**11.45**	
138KV Line									**8.02****	
D&T Totals	**178,166**	**30,588**	**342,178**	**686,527**	**33.74**	**5.79**	**64.81**	**130.02**	**118.02**	**135.82**

* Basis for tracking and managing 2014 and future tree trimming cycles (3 yr. mains and 6 yr. laterals) - Data source is GIS mapping system.

** 3.6 Miles of 138kV as of January 2018 due to FPL Interconnection.

Updated 5/7/2014

2019 FPUC NE Division - D&T Vegetation Management**										
Feeder #	Main Feeder		Feeder Laterals		Main Feeder		Feeder Laterals		TOTALS	
	OH (feet)	UG (feet)	OH (feet)	UG (feet)	OH (miles)	UG (miles)	OH (miles)	UG (miles)	OH (miles)	UG (miles)
311	5,350	0	27,150	0	1.01	0.00	5.14	0.00	6.16	0.00
310	7,300	0	12,545	0	1.38	0.00	2.38	0.00	3.76	0.00
209	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
210	2,400	0	8,510	0	0.45	0.00	1.61	0.00	2.07	0.00
211	0	0	1,000	0	0.00	0.00	0.19	0.00	0.19	0.00
212	9,150	0	17,390	0	1.73	0.00	3.29	0.00	5.03	0.00
214	7,900	0	17,100	0	1.50	0.00	3.24	0.00	4.73	0.00
215	1,000	0	2,025	0	0.19	0.00	0.38	0.00	0.57	0.00
102	0	0	1,150	0	0.00	0.00	0.22	0.00	0.22	0.00
104	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
110	5,935	0	0	0	1.12	0.00	0.00	0.00	1.12	0.00
111	5,935	0	0	0	1.12	0.00	0.00	0.00	1.12	0.00
Dist. Totals	44,970	0	86,870	0	8.52	0.00	16.45	0.00	24.97	0.00
69KV Line	0	Feet			0.00	Miles				
138KV Line	200	Feet			0.04	Miles				
D&T Totals	45,170									

** 2019 Trim Totals

2019 FPUC NW Division - D&T Vegetation Management*

	Main Feeder		Feeder Laterals		Main Feeder		Feeder Laterals		TOTALS	
Feeder #	OH (feet)	UG (feet)	OH (feet)	UG (feet)	OH (miles)	UG (miles)	OH (miles)	UG (miles)	OH (miles)	UG (miles)
9742 G-wood/ Malone	35,842	0	286,273	6,503	6.79	0.00	54.22	1.23	61.01	1.23
9722 Dogwood Heights	22,492	0	57,530	2,901	4.26	0.00	10.90	0.55	15.16	0.55
9982 College	70,950	0	214,562	32,034	13.44	0.00	40.64	6.07	54.07	6.07
9932 Indian Springs	30,117	181	139,043	40,744	5.70	0.03	26.33	7.72	32.04	7.75
9732 Prison	16,950	0	13,228	17,887	3.21	0.00	2.51	3.39	5.72	3.39
9942 Hwy 90E	59,479	0	269,335	23,186	11.26	0.00	51.01	4.39	62.28	4.39
9992 Hwy 90W	15,096	0	57,021	2,313	2.86	0.00	10.80	0.44	13.66	0.44
9854 South Street	38,708	0	480,975	21,409	7.33	0.00	91.09	4.05	98.42	4.05
9882 Bristol	60,005	0	224,028	5,931	11.36	0.00	42.43	1.12	53.79	1.12
9872 Family Dollar	16,275	365	3,633	2,817	3.08	0.07	0.69	0.53	3.77	0.60
9866 Cottondale	61,890	0	360,787	9,690	11.72	0.00	68.33	1.84	80.05	1.84
9952 Altha	24,266	0	242,986	2,544	4.60	0.00	46.02	0.48	50.62	0.48
9972 Blountstown	32,921	0	40,024	2,275	6.24	0.00	7.58	0.43	13.82	0.43
9512 Railroad	41,919	0	83,137	8,420	7.94	0.00	15.75	1.59	23.68	1.59
9872 Hospital	13,609	0	196,454	2,744	2.58	0.00	37.21	0.52	39.78	0.52
9752 Industrial Park	18,616	0	2,990	1,230	3.52	0.00	0.57	0.23	4.09	0.23
Dist. Totals	**559,135**	**546**	**2,672,006**	**182,628**	**105.89**	**0.10**	**506.06**	**34.59**	**611.95**	**34.69**

* Basis for tracking and managing 2014 and future tree trimming cycles (3 yr. mains and 6 yr. laterals) - Data source is GIS mapping system.
Updated 5/7/2014

2019 FPUC NW Division - D&T Vegetation Management**										
	Main Feeder		Feeder Laterals		Main Feeder		Feeder Laterals		TOTALS	
Feeder #	OH (feet)	UG (feet)	OH (feet)	UG (feet)	OH (miles)	UG (miles)	OH (miles)	UG (miles)	OH (miles)	UG (miles)
90E	1,926	0	1,498	0	0.36	0.00	0.28	0.00	0.65	0.00
90W	642	0	2,140	0	0.12	0.00	0.41	0.00	0.53	0.00
Altha	48,150	0	77,254	0	9.12	0.00	14.63	0.00	23.75	0.00
Blountstown	65,912	0	13,910	0	12.48	0.00	2.63	0.00	15.12	0.00
Bristol	42,372	0	156,220	0	8.03	0.00	29.59	0.00	37.61	0.00
College	642	0	7,490	0	0.12	0.00	1.42	0.00	1.54	0.00
Cottondale	1,498	0	7,490	0	0.28	0.00	1.42	0.00	1.70	0.00
Dogwood	0	0	2,782	0	0.00	0.00	0.53	0.00	0.53	0.00
Hospital	856	0	9,844	0	0.16	0.00	1.86	0.00	2.03	0.00
Indian Springs	1,070	0	1,498	0	0.20	0.00	0.28	0.00	0.49	0.00
Malone	1,070	0	1,926	0	0.20	0.00	0.36	0.00	0.57	0.00
Railroad	1,070	0	1,284	0	0.20	0.00	0.24	0.00	0.45	0.00
South St	31,244	0	36,594	0	5.92	0.00	6.93	0.00	12.85	0.00
Family Dollar	1,070	0	0	0	0.20	0.00	0.00	0.00	0.20	0.00
Prison	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
Industrial Park	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
Dist. Totals	**197,522**	**0**	**319,930**	**0**	**37.41**	**0.00**	**60.59**	**0.00**	**98.00**	**0.00**

** 2019 Trim Totals

2019 - FPUC Feeder Specific Data for Attached Laterals (Vegetation Related)

Feeder	Division	Feeder Type	Main Feeder		Feeder Laterals		TOTALS		Feeder Lateral CI	Feeder Lateral CMI	Feeder Circuit Looped?	Feeder Events N
			OH (miles)	UG (miles)	OH (miles)	UG (miles)	OH (miles)	UG (miles)				
102 SOUTH FLETCHER	NE	Hybrid	3.7	0.55	6.92	20.62	10.62	21.17	129	9,872	Yes	11
104 PARKWAY SOUTH	NE	Hybrid	0.27	1.29	0.00	9.77	0.27	11.06	1	34	Yes	1
110 PLANTATION RD	NE	Hybrid	2.99	0.36	0.41	31.8	3.40	32.16	1	185	Yes	1
111 PLANTATION FIEL	NE	Hybrid	1.96	1.14	1.51	17.13	3.47	18.27	15	667	Yes	1
209 FIFTEENTH STREET	NE	Hybrid	4.81	0.20	4.21	7.05	9.03	7.25	1	93	Yes	1
210 BUSS TIE	NE	Hybrid	2.03	0.32	4.76	0.98	6.79	1.3	2	160	Yes	2
211 JASMINE STREET	NE	Hybrid	2.88	0	11.28	4.59	14.16	4.59	295	32,073	Yes	13
212 ELEVENTH STREET	NE	Hybrid	3.29	0	10.7	1.84	13.99	1.84	12	600	Yes	7
214 CLINCH DRIVE	NE	Hybrid	2.89	0	4.78	1.28	7.67	1.28	18	874	Yes	2
215 SADLER NECTARIN	NE	Hybrid	2.13	0.24	2.76	7.36	4.89	7.59	1	57	Yes	1
310 BONNIEVIEW	NE	Hybrid	3.39	0.18	7.85	6.75	11.24	6.93	44	4,773	Yes	3
311 BAILEY	NE	Hybrid	6.19	0	9.0	19.4	15.19	19.4	2,904	352,198	Yes	10
312 AMELIA ISLAND P	NE	Hybrid	0.00	1.63	0.00	0.04	0.00	1.67	12	912	Yes	1
9952 ALTHA	NW	Hybrid	4.6	0	46.3	0.54	50.9	0.54	399	48,253	No	32
9972 BLOUNTSTOWN	NW	Hybrid	6.27	0	7.55	0.43	13.82	0.43	104	7,280	Yes	5
9882 BRISTOL	NW	Hybrid	11.52	0	42.5	1.12	54.02	1.12	512	52,968	No	22
9982 COLLEGE	NW	Hybrid	13.44	0	40.43	6.91	53.87	6.91	300	22,867	Yes	31
9866 COTTONDALE	NW	Hybrid	11.72	0	68.09	1.84	79.81	1.84	643	60,334	No	34
9722 DOGWOOD HT	NW	Hybrid	4.26	0	11.04	0.55	15.3	0.55	86	4,587	Yes	6
9742 GREENWOOD	NW	Hybrid	10.59	0	50.13	1.4	60.72	1.4	1,130	208,447	No	22
9872 HOSPITAL	NW	Hybrid	2.58	0	37.27	0.47	39.85	0.47	1,440	166,347	Yes	19
9942 HWY 90E	NW	Hybrid	11.26	0	51.19	4.39	62.45	4.39	174	15,286	No	11
9992 HWY 90W	NW	Hybrid	4.44	0.11	11.42	0.34	15.86	0.45	141	19,991	Yes	13
9932 INDIAN SPR	NW	Hybrid	5.7	0.03	26.5	7.83	32.2	7.86	1,181	84,420	No	36
9732 PRISON	NW	Hybrid	3.21	0	2.51	3.39	5.72	3.39	4	212	No	1
9512 RAILROAD	NW	Hybrid	6.45	0	9.9	1.55	16.35	1.55	60	4,767	Yes	8
9854 SOUTH ST	NW	Hybrid	7.19	0	100.05	4.22	107.24	4.22	1,735	176,666	Yes	63
TOTALS			**140**	**6**	**569**	**164**	**709**	**170**	**11,344**	**1,274,921**		**357**

Initiative #2 – Joint Use Pole Attachment Audit

FPUC has joint use agreements with multiple telecommunication and cable television providers. Some of the current agreements need additional language to add or clarify joint use audit and safety inspection instructions. Both CATV and Telco agreements were rewritten during 2014 to standardize language and to include clearly defined requirements for joint use pole attachment audits and safety inspections. During December 2014, new agreements were mailed to the CATV companies. Telco agreements expired on 12/31/2015 and had a requirement of 12 month advance notice of intent to terminate and replace the agreements. The Telco termination notices were delivered during December 2014. To establish pole ownership, both the new CATV and Telco agreements make provision for an initial joint use pole attachment audit to take place within 12 months of the effective date, upon request of the owner or licensee, and on a five year recurring cycle after the first audit. In addition, the CATV agreements make provision, at the sole discretion of the owner, for a joint safety inspection to take place subsequent to the inventory audit within 2 years of the agreement effective date, and recurring inspections on a five year cycle following the initial safety inspection. The agreements are subject to negotiation and the terms and timing are subject to change.

Currently Southern Light, Fairpoint Communications, Crown Castle and Spectra Network agreements have been executed. AT&T has elected to stay with the current agreement and focus on a negotiated amendment, for which the process will begin soon. Joint use agreement negotiations are ongoing, and in varying stages of completion with CenturyLink and Comcast. All agreements should be in place and executed during 2020.

FPUC completed the joint use pole attachment audit during the last quarter of 2016. The next joint use audit should take place in 2021. The current pole count for each joint user is shown in the table below. Attachment counts are from the 2016 audit.

Joint Use Attacher	# of Poles Attached to FPU	# of Poles FPU Attached
AT&T	**3,139**	**496**
Spectra	**952**	**0**
Century Link	**2,347**	**5**
Comcast NE	**3,565**	**0**
Comcast NW	**9,003**	**0**
Crown Castle	**47**	**0**
Fairpoint	**253**	**12**
Southern Light	**363**	**0**

Initiative #3 – Six Year Transmission Structure Inspection Program

Transmission inspections will be completed on all transmission facilities and will include climbing patrols of the 138 KV and 69 KV transmission lines owned by FPUC. This inspection will ensure that all structures have a detailed inspection performed at a minimum of every six years. The inspection will include fifty (50) 138 KV structures and two hundred seventeen (217) 69 KV structures. The inspections will ensure that all transmission towers and other transmission line supporting equipment such as insulators, guying, grounding, conductor splicing, cross-braces, cross-arms, bolts, etc. structurally sound and firmly attached. In addition to the six year climbing inspections mentioned above, wood transmission poles are also included in the 8 year wood pole ground-line condition inspection and treatment program.

Substation equipment will also be inspected annually to document the integrity of the facility and identify any deficiencies that require action. Substations will be inspected to ensure that all structures, buss work, insulators, grounding, bracing, bolts, etc. are structurally sound and firmly attached.

Transmission Circuit, Substation and Other Equipment Inspections

	Activity		Current Budget		Next Year	
	Goal	Actual	Budget	Actual	Goal	Budget
(A) Total transmission circuits.	15.05	15.05	$17,000	$17,000	15.05	$17,000
(B) Planned transmission circuit inspections *	15.05	0	$17,000	$0	15.05	$17,000
(C) Completed transmission circuit * ** inspections.	15.05	15.05	$17,000	$17,000	15.05	$1,7000
(D) Percent of transmission circuit inspections completed. *	100%	100%	NA	NA	100%	NA
(E) Planned transmission substation inspections	4	4	NA	NA	4	NA
(F) Completed transmission substation * inspections.	4	4	NA	NA	4	NA
(G) Percent transmission substation inspections completed.*	100%	100%	NA	NA	100%	NA
(H) Planned transmission equipment inspections (other equipment).	NA	NA	NA	NA	NA	NA
(I) Completed transmission equipment inspections (other equipment).	NA	NA	NA	NA	NA	NA
(J) Percent of transmission equipment inspections completed (other equipment).	NA	NA	NA	NA	NA	NA

* Inspections performed were visual. No visual inspection was performed in 2019 because the 2018 detailed inspection was delayed due to Hurricane Michael until December 2018/January 2019.

** Latest 6 yr. Detailed inspection completed in late2018.

Transmission Tower Structure Inspections

	Activity		Current Budget**		Next Year	
	Goal	Actual	Budget	Actual	Goal	Budget
(A) Total transmission tower structures.	4	4	NA	NA	4	NA
(B) Planned transmission tower structure Inspections *	4	0	NA	NA	4	NA
(C) Completed transmission tower structure inspections. *	4	0	NA	NA	4	NA
(D) Percent of transmission tower structure inspections completed.	100%	0%	NA	NA	100%	NA

* Latest 6 yr. Detailed inspection completed in late 2018. No visual inspection was performed in 2019 because the 2018 detailed inspection was delayed due to Hurricane Michael until December 2018/January 2019.
** Current accounting system does not provide data to this level

Transmission Pole Inspections

	Activity		Current Budget		Next Year	
	Goal	Actual	Budget	Actual	Goal	Budget
(A) Total number of transmission poles. * **	263	263	NA	NA	263	NA***
(B) Number of transmission poles strength tested.	NA	NA	NA	NA	NA	NA
(C) Number of transmission poles passing strength test.	NA	NA	NA	NA	NA	NA
(D) Number of transmission poles failing strength test (overloaded).	NA	NA	NA	NA	NA	NA
(E) Number of transmission poles failing strength test (other reasons).	NA	NA	NA	NA	NA	NA
(F) Number of transmission poles corrected (strength failure).	NA	NA	NA	NA	NA	NA
(G) Number of transmission poles corrected (other reasons).	NA	NA	NA	NA	NA	NA
(H) Total transmission poles replaced.	NA	NA	NA	NA	NA	NA

*****FPUC includes wood transmission poles in the eight year ground-line condition inspection and treatment program.
** 6 yr. Detailed inspection was completed in 2018 No visual inspection was performed in 2019 because the 2018 detailed inspection was delayed due to Hurricane Michael until December 2018/January 2019.
*** Current budget is included in the table above

Initiative #4 – Storm Hardening of Existing Transmission Structures

NE Division's 138 KV transmission system was constructed using concrete poles, steel poles, and steel towers. The construction generally complies with storm hardening requirements. The structures will continue to be inspected as outlined in Initiative #3 - Six Year Transmission Structure Inspection Program - to ensure the integrity of the system. The Latest inspection was completed in December, 2018.

The 69 KV transmission system consists of a total of 217 poles of which 105 are concrete, seven are wood span guys and 105 are wood structures. All installations met the NESC code requirements in effect at the time of construction. A policy of replacing existing wood poles with concrete structures has been in place for some time. This policy requires that when it becomes necessary to replace a wood pole, due to construction requirements or concerns with the integrity of the pole, a concrete pole that meets current NESC codes and storm hardening requirements will be utilized.

NW Division currently has no transmission structures.

Hardening of Existing Transmission Structures

	2019 Activity		2019 Budget		2020 Next Year	
	Goal	Actual	Budget	Actual	Goal	Budget
(A)Transmission structures scheduled for hardening.	**19**	**0**	**$200,000**	**$0**	**19**	**$2,000,000**
(B) Transmission structures hardening completed.	**0**	**0**	**4**	**0**	**19**	**19**
(C) Percent transmission structures hardening completed.	**50%**	**48%**	**50%**	**48%**	**57%**	**57%**

Initiative #5 – Geographic Information System

FPUC utilizes GIS mapping for both divisions. The systems are ESRI based using ArcGIS to identify the distribution and/or transmission facilities overlaid on a GIS land base. The systems locate the facilities on the land base and allow the users to enter data updates for all existing or new physical assets within the system. The system has proven to be a reliable and valuable tool for the engineering of new construction or existing system maintenance projects.

The system also interfaces with the Customer Information System to function as a Customer Outage Management System (OMS). Implementation of the OMS has resulted in significant improvement in data collection and retrieval capability for analyzing and reporting reliability indices.

The GIS is being used as an integral part of the data collection for many of the programs mentioned in this update. The information, now available in the GIS, is instrumental in conducting pole inspections and joint use audits. In addition, the OMS will serve as a valuable tool for use in post storm forensic analysis.

In 2013 FPUC completed the upgrade and installation of a new GIS mapping system which has integrated multiple utility systems (gas, electric, propane, etc.) into one system. The migration of data began in 2012 and was completed by the end of 2013. In addition, a new and improved version of the OMS system was also installed in 2013. In 2014 FPU began using the new OMS which provided several enhancements that have proven to be beneficial for managing outages. A key feature of the new OMS is the automatic notification of outages to mangers, supervisors and employees via text and/or email.

During 2016 FPUC successfully implemented an OMS enhancement which enabled dispatching of outages directly to the crews via an IPad application. .

During 2018 FPUC successfully implemented an OMS enhancement which enabled customers to leave a voice message containing further information that is beneficial for managing outages. In addition, FPUC implemented automatic logging of customer outage calls into the OMS via IVR.

During 2019 FPUC successfully implemented an OMS enhancement which granted managers, supervisors, and directors access to an electric outage webpage to view outages in real-time via smart phone.

Initiative #6 - Post-Storm Data Collection and Forensic Analysis

FPUC has established a forensics oversight team to coordinate communications, schedule data collection activities, and final reporting requirements. Our plans are to utilize internal resources, outside consultants or teams from Southeastern Electric Exchange (SEE) Members to collect, analyze, and report on field data collected which will be entered into the FPUC Outage Management System (OMS). FPUC will utilize reporting forms for submitting forensic data to the FPSC.

The following is the latest version of the FPUC "FORENSIC DATA COLLECTION AND REPORTING" procedure:

FORENSIC DATA COLLECTION AND REPORTING

PURPOSE:

To set standards and responsibilities for the collection, assessment, and reporting of storm related damage to FPUC transmission, substation, and distribution structures and equipment. To accomplish these tasks in an orderly manner, safely, and with a minimum of interference with the process of system restoration following a storm.

PROCESS:

A minimum of 72 hours prior to the storm; FPU will initiate the forensic process by alerting team members both in-house and external of the impending event. All contact information will be verified for accuracy and all equipment will be checked to make sure it is in good working order.

48 hours prior to the storm; begin the process of accessing where the storm is most likely to strike and determine the best locations for forensic teams. Inform team members of more specific information as it becomes available.

24 hours prior to the storm; notify all team members of actual crew personnel, mobilization plan, safety procedures, and reporting instructions.

After the storm; perform a forensic investigation at each location or a representative sample of locations encountered that meets reportable criteria. Damage locations to include, but are not limited to poles, wires, cross arms, insulators, transformers, reclosers, capacitor banks, cutouts, any other equipment that is damaged or has caused a customer outage.

Damage areas will be determined and teams dispatched utilizing FPU's outage management system, reports from customers, and reports from restoration crews.

RESPONSIBILITIES:

An FPUC Forensic Team Leader will be assigned and will be responsible for managing the overall forensic effort. This will include tracking storm progress, selecting areas to be surveyed, coordinating team deployment, and communications with local Operations Centers, review findings and generating final reports.

Florida Public Utilities Company will utilize Internal Employees, Outside Consultants or Southeastern Electric Exchange (SEE) Member Teams to provide forensic investigative teams that will be responsible for safely collecting information on storm damage. Damaged facilities are defined as broken poles, leaning poles, broken or downed wires, damaged line equipment, and any other incident that has caused a customer outage.

REPORTING:

All post storm forensic data collected will be entered in standard forms. The form allows both overhead and underground damage to be entered and data must be entered separately for each incident. Pictures of damages from multiple views will be taken and included for clarity and additional assessment. The form utilized for the data collection is shown below.

FPU Post-Storm Forensics Data Collection Sheet

Date of Data Gathering

Storm Information

A. Storm Name

B. Wind Information
   1 predominant direction
   2 intensity
   3 tornadoes (Y/N)

C. Rain
   1 Amount (inches)
   2 Duration (hours)

D. Storm
   1 Speed (mph)
   2 Wind field

Location Information

A. Geographic Location of Observation (GIS) / Equipment ID #
B. Soil Type
C. Surface Grade
D. Topology (ditch, hill, etc.)
E. Flood zone? (Y/N)
F. Exposure level (coastal, suburban, inner city, urban, rural)
G. Attach pictures, video? (Y/N)
H. Debris in area (describe)
I. Tree Density (light, medium, heavy)

Overhead Facilities Information

A. What was the object that failed? (check all that apply)
   1 Cross arm?
   2 Pole?
   3 Span/line?

B. Observed cause of failure (check one)
   1 Debris
   2 Tree
   3 Wind only
   4 Cascade

C. Pole Information

1 Attributes

a. Is the pole a primary feeder? Lateral? (check one)
   1) Primary Feeder
   2) Lateral

b. Types of trusses (describe)

c. Owner (name)

d. Contruction Type of pole (check one)
   1) Tangent
   2) Angle
   3) Right angle
   4) Dead end

2 Pre-wind condition

- a. Wind grade
- b. Class
- c. Height (feet)
- d. Birth Year
- e. Type of pole (CCA, Penta, Creasote)
- f. Span length (approximate, in feet)
- g. Decay or deterioration? (Y/N)
  - 1) Circumference at decay (inches)
- h. Last inspected
  - 1) Year
  - 2) Receive treatment? (butt wrap, chemical, unknown)
- i. Braced? (Y/N)
- j. Guyed? (Y/N)

3 Break? (Y/N)

- a. Height measurement at break (check one)
  - 1) Lower 1/3
  - 2) Middle 1/3
  - 3) Upper 1/3
- b. Circumference at break (inches)
- c. Break at foreign attachments? (Y/N)
- d. Break at own attachments? (Y/N)
- e. Direction of break

4 Is pole leaning? (Y/N)

- a. Direction
- b. Angle from vertical

5 Own conductors

- a. Number primary
- b. Number secondary
- c. Horizontal or vertical (H/V)

6 Attached equipment

- a. Transformer (Y/N)
- b. Arrestor (Y/N)
- c. Cap bank (Y/N)
- d. Disconnect (Y/N)
- e. Re-closer (Y/N)
- f. Fuse (Y/N)
- g. Regulator (Y/N)
- h. Other (describe)

7 Per third party attachment

- a. Owner (name)
- b. Type (coax, telephone, fiber, antenna)
- c. Number of cables
- d. Size (diameter in inches)
- e. Location on pole (height in feet)
- f. Guiding (Y/N)
- g. Authorized or unauthorized?
- h. Over-lashed? (Y/N)

8 Cascade

- a. Is this an endpoint? (Y/N)
- b. What started cascade? (describe)
- c. What stopped cascade? (describe)
- d. Direction of lean/down?
- e. Type of guiding (describe)

9 What wasn't damaged? (describe)

Underground Facilities Information

A. What was the object that failed?

1 Equipment (check one)
- a. Transformer
- b. Switchgear
- c. Load break cabinet
- d. Capacitor bank
- e. Other (please describe)

2 Enclosure type (check one)
- a. Stainless steel
- b. Aluminun
- c. Mild steel
- d. Other (please describe)

3 Conduit? (Y/N)

4 Direct buried cable? (Y/N)

5 Underground vault? (Y/N)

B. Attributes of facilities

1 Type (check one)
- a. Feeder
- b. Lateral

2 Anchoring equipment
- a. Type of pad (describe)
- b. Type of attachment to pad (describe)

3 Age of facilities (years)

4 Pre-storm condition
- a. Date of last inspection (year)
  - 1) Receive treatment? (describe)
- b. Cable depth relative to surrounding area (feet)
- c. Hardened? (Y/N)
- d. Installer (name)

C. Observed cause of failure? (Y/N)

1 Source of water (check all that apply)
- a. Storm surge
- b. Flood water

2 Type of water (check one)
- a. Fresh water
- b. Salt water

3 Tree uprooting? (Y/N)

Forensics' Data From 2020

There were no significant storms that impacted FPUC service territories to the extent that the collection of forensics data was necessary. Hurricane Dorian and Tropical Storm Nestor did impact the FPUC service territory but both resulted in minimal damage.

Initiative #7 – Reliability Performance of Overhead vs Underground Systems

FPUC collects outage data attributed to overhead or underground equipment failure in order to evaluate the associated reliability indices. OH & UG adjusted reliability indices are reported for each Division and for FPUC system total.

During 2019 there were no projects converting OH to UG on FPUC's system.

2019 - Reliability Indicators By UG & OH - FPUC Total (Adjusted)

Construction	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
OH	1,286	98.18	96.13	4,581,513	47,662	126,263		
UG	50	173.99	146.11	221,650	1,517	8,699		
Grand Total	**1,336**	**101.02**	**97.67**	**4,803,163**	**49,179**	**134,962**	**166.42**	**1.70**

Total # of Customers at end of 2019 ==> **28,861**

2019 - OH Reliability by Feeder - FPUC NE (Adjusted)								
FEEDER	**Outage Events (N)**	**Ave. Duration (L Bar)**	**CAIDI**	**Customer Min. Interrupted (CMI)**	**Customer Interruptions (CI)**	**Outage Duration (L)**	**SAIDI**	**SAIFI**
AMELIA ISLAND PARKWAY (312)	10	86.38	116.15	47,852	412	864		
BAILEY (311)	37	70.47	118.89	362,852	3,052	2,607		
BONNIEVIEW (310)	17	68.32	82.63	180,546	2,185	1,162		
CLINCH DRIVE (214)	16	72.63	41.61	20,681	497	1,162		
ELEVEN STREET (212)	21	87.66	210.00	49,350	235	1,841		
FIFTEENTH STREET (209)	13	95.44	62.68	6,206	99	1,241		
JASMINE STREET (211)	39	102.14	69.38	100,876	1,454	3,983		
NECTARINE (210)	18	125.38	208.96	56,420	270	2,257		
PARKWAY SOUTH (104)	1	34.30	34.30	34	1	34		
PLANTATION FIELDSIDE (111)	3	42.63	46.40	40,692	877	128		
PLANTATION ROADSIDE (110)	4	158.71	104.95	4,618	44	635		
SADLER NECTARINE SO.14TH (215)	9	64.87	50.78	172,362	3,394	584		
SOUTH FLETCHER (102)	38	92.47	203.36	128,520	632	3,514		
Grand Total	**226**	**88.54**	**89.04**	**1,171,011**	**13,152**	**20,011**	**70.01**	**0.79**

Total # of NE Customers in 2019: **16,727**

2019 - UG Reliability by Feeder - FPUC NE (Adjusted)								
FEEDER	**Outage Events (N)**	**Ave. Duration (L Bar)**	**CAIDI**	**Customer Min. Interrupted (CMI)**	**Customer Interruptions (CI)**	**Outage Duration (L)**	**SAIDI**	**SAIFI**
BAILEY (311)	5	96.72	72.21	1,155	16	484		
BONNIEVIEW (310)	1	43.25	43.25	43	1	43		
CLINCH DRIVE (214)	1	217.73	217.73	218	1	218		
FIFTEENTH STREET (209)	2	315.42	429.69	2,148	5	631		
JASMINE STREET (211)	2	104.82	104.82	210	2	210		
NECTARINE (210)	1	133.00	133.00	133	1	133		
PLANTATION FIELDSIDE (111)	5	120.16	145.29	195,990	1,349	601		
PLANTATION ROADSIDE (110)	4	193.75	120.51	1,567	13	775		
SADLER NECTARINE SO.14TH (215)	4	182.63	182.63	731	4	731		
SOUTH FLETCHER (102)	2	82.92	82.92	166	2	166		
Grand Total	**27**	**147.79**	**145.17**	**202,360**	**1,394**	**3,990**	**12.10**	**0.08**

Total # of NE Customers in 2019: **16,727**

2019 - OH Reliability by Feeder - FPUC NW (Adjusted)								
FEEDER	**Outage Events (N)**	**Ave. Duration (L Bar)**	**CAIDI**	**Customer Min. Interrupted (CMI)**	**Customer Interruptions (CI)**	**Outage Duration (L)**	**SAIDI**	**SAIFI**
ALTHA (9952)	114	111.92	100.83	306,923	3,044	12,758		
BLOUNTSTOWN (9972)	15	87.53	61.99	31,799	513	1,313		
BRISTOL (9882)	67	80.22	78.06	361,580	4,632	5,374		
COLLEGE (9982)	108	102.31	77.26	240,131	3,108	11,050		
COTTONDALE (9866)	145	87.31	100.41	320,717	3,194	12,660		
DOGWOOD HEIGHTS (9722)	28	88.29	110.39	57,069	517	2,472		
FAMILY DOLLAR (9782)	2	122.44	147.33	3,241	22	245		
GREENWOOD (9742)	85	93.78	152.17	743,786	4,888	7,971		
HOSPITAL (9872)	45	104.88	93.85	242,127	2,580	4,720		
HWY 90E (9942)	46	109.56	108.00	116,537	1,079	5,040		
HWY 90W (9992)	40	97.46	115.85	87,468	755	3,898		
INDIAN SPRINGS (9932)	70	95.37	89.88	138,228	1,538	6,676		
INDUSTRIAL PARK (9752)	8	73.16	92.02	7,914	86	585		
PRISON (9732)	6	107.67	107.18	1,715	16	646		
RAILROAD (9512)	27	122.45	162.90	38,282	235	3,306		
SOUTH STREET (9854)	169	102.77	79.39	479,890	6,045	17,369		
Grand Total	**975**	**98.55**	**98.52**	**3,177,408**	**32,252**	**96,085**	**261.84**	**2.66**

Total # of NW Customers in 2019: **12,135**

2019 - UG Reliability by Feeder - FPUC NW (Adjusted)								
FEEDER	Outage Events (N)	Ave. Duration (L Bar)	CAIDI	Customer Min. Interrupted (CMI)	Customer Interruptions (CI)	Outage Duration (L)	SAIDI	SAIFI
ALTHA (9952)	2	124.02	124.02	248	2	248		
BLOUNTSTOWN (9972)	1	150.50	150.50	150	1	150		
BRISTOL (9882)	1	78.20	78.20	78	1	78		
COLLEGE (9982)	3	273.59	97.48	975	10	821		
COTTONDALE (9866)	1	86.27	86.27	1,639	19	86		
FAMILY DOLLAR (9782)	1	191.92	191.92	4,798	25	192		
HOSPITAL (9872)	1	32.07	32.07	32	1	32		
HWY 90W (9992)	2	161.01	248.15	1,489	6	322		
INDIAN SPRINGS (9932)	2	503.09	677.91	4,745	7	1,006		
PRISON (9732)	2	93.40	88.73	532	6	187		
RAILROAD (9512)	1	362.97	362.97	363	1	363		
SOUTH STREET (9854)	6	203.91	96.35	4,239	44	1,223		
Grand Total	**23**	**204.75**	**156.83**	**19,290**	**123**	**4,709**	**1.64**	**0.010**

Total # of NW Customers in 2019: **12,135**

Initiative #8 – Utility Company Coordination with Local Governments

FPUC actively participates with local governments in pre-planning for emergency situations and in coordinating activities during emergency situations. Current practice is to have FPUC personnel located at the county EOC's on a 24 hour basis and at the State EOC as needed during emergency situations to ensure good communications.

FPUC has continued involvement with local governments regarding reliability issues with emphasis on both undergrounding and vegetation management. All parties have continued to cooperate in order to address vegetation management issues in a cost effective manner when possible so that overall reliability impacts are minimized.

FPUC has a dedicated Manager of Government Relations that is responsible for maintaining relationships with local and state government officials/staff, business and community leaders. This employee responds quickly to customer issues referred by elected and governmental officials and their representatives.

Initiative #9 – Collaborative Research

FPUC is participating with the Public Utility Research Center (PURC) along with other investor owned, cooperative, and municipal electric utilities in order to perform beneficial research regarding hurricane winds and storm surge within the state. PURC has demonstrated the ability to lead and coordinate multiple groups in research activities. FPUC will continue to support this effort but does not intend to conduct any additional research at this time.

The benefits of the research work among the utilities and PURC include increased and sustained collaboration and discussion among the members of the Steering Committee, greater knowledge of the determinants of damage during storm and non-storm times, greater knowledge and data from wind collection stations and post-hurricane forensics in the State of Florida, and continued state-to-state collaboration with others in the Atlantic Basin Hurricane Zone.

The 2020 report regarding activities in 2019 follows on the next page.

Report on Collaborative Research for Hurricane Hardening

Provided by

The Public Utility Research Center
University of Florida

To the

Utility Sponsor Steering Committee

Final Report dated February 2020

I. Introduction

The Florida Public Service Commission (FPSC) issued Order No. PSC-06-00351-PAA-EI on April 25, 2006 (Order 06-0351) directing each investor-owned electric utility (IOU) to establish a plan that increases collaborative research to further the development of storm resilient electric utility infrastructure and technologies that reduce storm restoration costs and outages to customers. This order directed IOUs to solicit participation from municipal electric utilities and rural electric cooperatives in addition to available educational and research organizations. As a means of accomplishing this task, the IOUs joined with the municipal electric utilities and rural electric cooperatives in the state (collectively referred to as the Research Collaboration Partners) to form a Steering Committee of representatives from each utility and entered into a Memorandum of Understanding (MOU) with the University of Florida's Public Utility Research Center (PURC). In 2018 the Research Collaboration MOU was renewed for an initial term of two years, effective January 1, 2019, and will be automatically extended for successive two-year terms.

PURC performs the administration function for research collaboration, including financial management, logistics, production and distribution of documents, and preparation of reports. PURC also coordinates and performs research as agreed upon with the Steering Committee by facilitating the exchange of information from the Research Collaboration Partners with individuals conducting research projects and facilitating the progress of each research project.. The collaborative research has focused on undergrounding, vegetation management, hurricane-wind speeds at granular levels, and improved materials for distribution facilities.

This report provides an update on the activities of the Steering Committee since the previous report dated February 2019.

II. Undergrounding

The collaborative research on undergrounding has been focused on understanding the existing research on the economics and effects of hardening strategies, including undergrounding, so that informed decisions can be made about undergrounding policies and specific undergrounding projects.

The collaborative has refined the computer model developed by Quanta Technologies and there has been a collective effort to learn more about the function and functionality of the computer code. PURC and the Project Sponsors have worked to fill information gaps for model inputs and significant efforts have been invested in the area of forensics data collection.

In addition, PURC has worked with doctoral and master's candidates in the University of Florida Department of Civil and Coastal Engineering to assess some of the inter-relationships between wind speed and other environmental factors on utility equipment damage. PURC has also been contacted by engineering researchers at the University of Wisconsin and North Carolina State University with an interest in the model, though no additional relationships have been established. In addition to universities, PURC has been in contact with stakeholders in Puerto Rico in light of PURC Director Mark Jamison's appointment to the Southern States Energy Board Blue Ribbon Task Force on the future of Puerto Rico's energy system. The stakeholders, government and task force are concerned with strategies to make Puerto Rico's system more resilient and are interested in the role that the model could play. Finally, PURC has been contacted by California stakeholders interested in applying the principles of the model to the mitigation of the interactions between the electricity grid and the surrounding vegetation, potentially reducing the risk of wildfires. Despite the outside interest, there are no concrete plans to expand the scope of the model at this time. Every researcher that contacts PURC cites the model as the only non-proprietary model of its kind.

III. Wind Data Collection

The Project Sponsors entered into a wind monitoring agreement with WeatherFlow, Inc., in 2007. Under the agreement, Florida Sponsors agreed to provide WeatherFlow with access to their properties and to allow WeatherFlow to install, maintain and operate portions of their wind monitoring network facilities on utility-owned properties under certain conditions in exchange for access to wind monitoring data generated by WeatherFlow's wind monitoring network in Florida. WeatherFlow's Florida wind monitoring network includes 50 permanent wind monitoring stations around the coast of Florida, including one or more stations located on utility-owned property. The wind monitoring agreement expired in early 2012; however, it was renewed in April 2017 and will renew automatically annually on the effective date for an additional one year period, unless terminated by the parties to the agreement.

IV. Public Outreach

We have previously discussed the impact of increasingly severe storms and the increased population and utility infrastructure along the coast on greater interest in storm preparedness. PURC researchers continue to discuss the collaborative effort in Florida with the engineering departments of the state regulators in New York, New Jersey, and Pennsylvania, and regulators in Jamaica, Grenada, Curacao, St. Lucia, the Bahamas, Samoa, and the Philippines. In 2019, stakeholders in Puerto Rico and California also showed interest in the collaborative's efforts. While all of the regulators and policymakers showed great interest in the genesis of the collaborative effort, and the results of that effort, they have not, at this point, shown further interest in participating in the research effort. In 2019, there continued to be considerable interest in Florida's hardening efforts from the popular media in California, in light of continued wildfire problems in the state and their aftermath.

VI. Conclusion

In response to the FPSC's Order 06-0351, IOUs, municipal electric utilities, and rural electric cooperatives joined together and retained PURC to coordinate research on electric infrastructure hardening. The steering committee has taken steps to extend the research collaboration MOU so that the industry will be in a position to focus its research efforts on undergrounding research, granular wind research and vegetation management when significant storm activity affects the state.

Initiative #10 – Natural Disaster Preparedness and Recovery Program

FPUC utilizes these plans to prepare for storms annually and to ensure all employees are aware of their responsibilities. The primary objective of the Disaster Preparedness and Recovery Plan is to provide guidelines under which Florida Public Utilities Company will operate in emergency situations. This information is contained within the Emergency Procedures that are updated on an annual basis. The following objectives are included to ensure orderly and efficient service restoration.

1. The safety of employees, contractors and the general public will have the highest priority.
2. Early damage assessment is required in order to develop manpower requirements.
3. Request additional manpower as soon as conditions and information indicate the need.
4. Provide for orderly restoration activities in order to provide efficient and rapid restoration.
5. Provide all logistical needs for employees and contractors.
6. Provide ongoing preparation of our employees, buildings, equipment and support function in advance of an emergency.
7. Provide support and additional resources for employees and their families should they need assistance to address injury or damage as a result of the emergency situation.

Based on the location of the storm, the division office in that area will be designated as the operations center and all restoration and logistical activities will be coordinated from that location. Restoration activities will be handled in the following manner:

1. During the early stages of the emergency, restoration will be handled in a coordinated manner that results in all services restored as soon as possible.
2. As the storm intensifies and trouble reaches major proportions, the main restoration activities will be limited to keeping main feeders energized by clearing trouble without making repairs.
3. When the intensity of the storm is such that work can no longer be done safely, all work will cease and personnel will report to the office or other safe locations.
4. When the storm has subsided to a reasonable level and it is safe to begin restoration activities damage assessment and restoration of main feeders to critical customers will begin.
5. Restoration activities will continue in an effort to restore service in the following manner:

    a) Transmission
    b) Substations
    c) Main feeders to critical customers
    d) Other main feeders
    e) Undamaged primary
    f) Damaged primary, secondary, service, street lights, security lights

These guidelines are not intended to prevent responding to emergency situations. Any life threatening emergency will be handled immediately, in such a manner as to not endanger the lives of others.

Communication efforts with local governments, County and State EOC's and the media will be a key in ensuring a safe and efficient restoration effort. Key personnel will be designated as the media liaison and will ensure that communications regarding the status of the restoration activities are available on a scheduled basis.

2020 Emergency Procedures for both divisions along with any changes are as listed below.

NORTHEAST DIVISION CHANGES

General Update Information

Revisions:

- Miscellaneous changes to employee names and titles
- Revised General Procedures to correct language and provide some commonality between Divisions
- Revised storm materials
- Updated contacts and phone numbers were appropriate

NORTHWEST DIVISION CHANGES

General Update Information

Revisions:

- Miscellaneous changes to employee names and titles
- Revised General Procedures to correct language and provide some commonality between Divisions
- Added Propane/ Natural Gas to storm procedures
- Revised storm Materials
- Updated contacts and phone numbers were appropriate

FLORIDA PUBLIC UTILITIES COMPANY

NORTHEAST FLORIDA DIVISION

2020

EMERGENCY PROCEDURES NATURAL DISASTER & RECOVERY

1. OBJECTIVE

The primary objective of the procedure is to provide guidelines under which the Northeast Florida Division of Florida Public Utilities Company will operate in emergency conditions. The following objectives will ensure orderly and efficient service restoration.

A. The safety of employees, contractors and the general public will have the highest priority.

B. Early damage assessment is required in order to develop manpower requirements.

C. Request additional manpower as soon as conditions and information indicate the need.

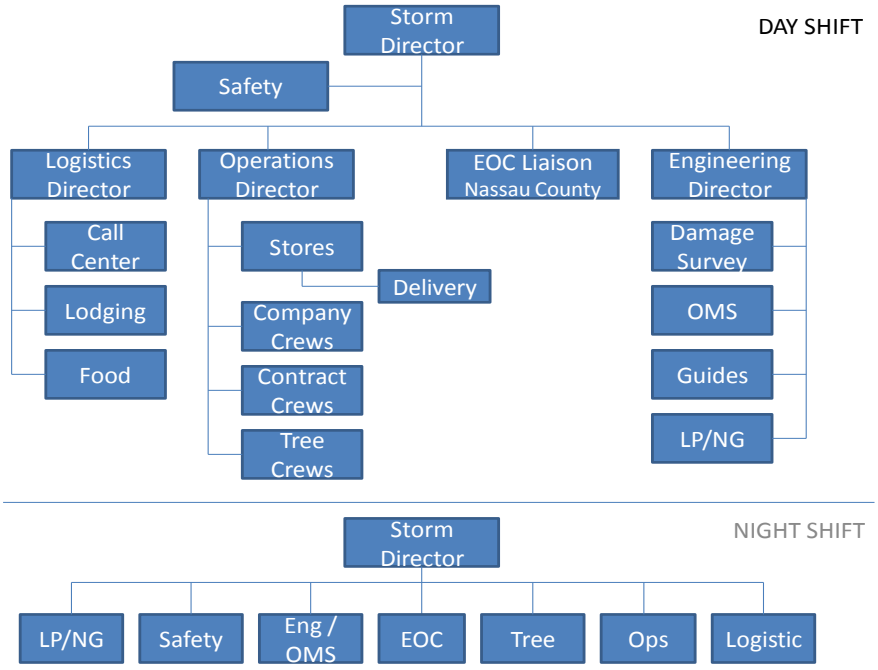
D. Provide for orderly restoration activities in order to provide efficient and rapid restoration.

E. Provide all logistical needs for employees and contractors.

F. Provide ongoing preparation of our employees, buildings, equipment and support function in advance of an emergency.

G. Provide support and additional resources for employees and their families should they need assistance to address injury or damage as a result of the emergency situation.

2. STORM MODE ORGANIZATIONAL CHART



3. EMERGENCY PERSONNEL POLICY

As a public utility we provide essential services for our customers and the general public. Therefore, the purpose of the Company's Emergency Personnel Policy is to encourage employees to make every reasonable effort to report to work. Each employee performs an essential role in the Company's operation and it's important that you report to duty as scheduled during an emergency. Restoring and maintaining services after a major storm is a difficult job and requires everyone's best efforts. If necessity, employees may be required to assist other departments or perform functions outside of their normal daily work assignment. It will take every employee's cooperation before, during and after an emergency.

A. If you are on the job when the storm approaches, your supervisor will inform you of your storm assignment. Employees not directly involved in maintaining services may be released to go home before the storm threatens safe travel.

B. If you are off-duty, call your immediate supervisor as soon as possible after an emergency condition is announced. An Emergency Condition Warning is usually given within 24 hours of occurrence. Your supervisor will inform you as to where and when you'll be needed prior to, during, and after the storm. If your supervisor is not available call his/her immediate supervisor or the Northeast Florida Office. This requirement applies to all Northeast division employees when an emergency threatens any of the Company's service areas.

C. During an emergency, the company will maintain a small workforce to monitor the emergency and address emergency conditions that may exists. This workforce will be located at a safe location and work closely with the Counties served EOCs. The company will determine what workforce is required and will consider utilizing those employees who volunteer for this type of work. Local Management will form the basis of this group. Other employees will be included based on the severity and timing of the emergency.

D. All employees are strongly encouraged to have a personal evacuation plan and know what to do during an emergency condition that impacts the service area. The plan should take into consideration the magnitude of the emergency and the significance of the actions that may be necessary. The plan should ensure that the employee and their family are safely out of harm's way while still allowing the employee to respond as required when the emergency conditions subside to a manageable level.

E. The company plans to move much of the transportation equipment to separate locations to ensure one event does not cause damage to the fleet. Employees are encouraged to volunteer to take certain vehicles with them prior to the emergency and use them to return to work as soon as possible after the emergency conditions subside to a manageable level. The company will determine how the transportation equipment is distributed among the volunteer employees.

F. After the emergency passes, all personnel not on duty during the storm will report as soon as possible to their supervisor or his/her designate by telephone. In the event the telephones are not working or you are unable to communicate with your supervisor or the company office, report in person to your regular work station as soon as possible during daylight hours.

G. EMPLOYEES ARE TO MAKE EVERY REASONABLE EFFORT TO REPORT TO WORK. IT'S UNDERSTOOD THAT THERE WILL BE INSTANCES WHERE EMPLOYEES JUST CAN'T GET TO WORK. IF YOU ARE UNABLE TO REPORT TO WORK MAKE EVERY EFFORT TO CONTACT YOUR SUPERVISOR TO REPORT YOUR ABSENCE.

H. Personal emergencies are common results of a major hurricane but, unless approved by your Supervisor, will not be acceptable as an excuse for not reporting to work. Evacuation from a hurricane threatened area to a remote location from which you cannot promptly return to your home is also not acceptable as a reason for not reporting to work.

I. The Company will endeavor to provide assistance to employees and their immediate families should an employee need or request assistance.

J. Unless emergency conditions warrant, employees will not be allowed to work in excess of sixteen (16) hours during a 24 hour period.

The success of the emergency plan requires the cooperation and efforts of all of our employees. Employees may be required to return from their vacation or Company sponsored travel. Therefore, it will be the responsibility of each supervisor to determine the location of each of their employees on Company sponsored trips to facilitate their recall if conditions warrant their return when the emergency plan is implemented. Employees who are on vacation will notify, by telephone, their supervisors of their location and availability when an emergency threatens to strike our service area. Supervisors will consult with their department head to determine the feasibility and need to recall employees from vacation or Company sponsored trips. All employees are essential for the continued operation of the Company obligations and Company objectives.

The Company will develop information which will assist employees and their families before, during and after the storm. Management will be responsible for obtaining the information and communicating this information to the employees. The Company will attempt to provide as much assistance as practical to the employees and their families during emergency situations if needed

4. GENERAL RESTORATION GUIDELINES

These general guidelines are issued to provide overall guidance as to emergency system restoration activities. These guidelines will be followed as much as practical in emergencies caused by hurricanes, tornadoes, ice storms and other natural disasters.

These guidelines are not intended to nor will they put in jeopardy the safety of any employee or their family. Dependent upon the intensity of the storm as determined by the company's management, employees will be required to report to work as instructed. If the intensity of the storm is such that weather conditions will be extremely severe, only a skeleton crew will be present at the work location. All others will report for duty as soon as conditions subside to a reasonable level. Those on vacation will be expected to report for duty.

The Northeast Florida operations building was designed to withstand 160 mph sustained winds. If winds are expected to significantly exceed these ratings, alternative locations will be identified and restoration will be relocated to an alternate Facility.

These guidelines are not intended to prevent responding to emergency situations. Any life threatening emergency will be handled immediately, in such a manner as to not endanger the lives of others.

Each employee and contractor should maintain good customer relations during restoration activities. Customer service will continue to be a high priority and every reasonable effort should be made to satisfy our customers.

Press releases and public announcements should be made only by designated company management personnel.

Restoration activities will be handled in the following manner:

A. During the early stages of the emergency, restoration will be handled in the usual manner. All service will be restored as soon as possible.

B. As the storm intensifies and trouble reaches major proportions, the main restoration activities will be limited to keeping main feeders energized by clearing trouble without making repairs.

C. When the intensity of the storm is such that work can no longer be done safely, all work will cease and personnel will report to the office or other safe location. Aerial work will not be conducted when wind speed reach 40 miles per hour.

D. When the storm has subsided to a reasonable level and it is safe to begin restoration activities damage assessment and restoration of main feeders to critical customers will begin.

E. Restoration activities will continue in an effort to restore service in the following manner:
   1) Transmission
   2) Substations
   3) Main feeders to critical customers
   4) Other main feeders
   5) Undamaged primary
   6) Damaged primary, secondary, service, street lights, security lights

These guidelines are not intended to prevent responding to emergency situations. Any life threatening emergency will be handled immediately, in such a manner as to not endanger the lives of others.

Each employee and contractor should maintain good customer relations during restoration activities. Customer service will continue to be a high priority and every reasonable effort should be made to satisfy our customers.

Press releases and public announcements should be made only by designated company management personnel.

5. EMERGENCY ELECTRIC SAFETY PRECAUTIONS

All Rules in the Safety Manual shall be observed. However, in order to point out some particular precautions which should be observed during storms, the following instructions listed below should receive special emphasis:

ALL incoming crews must have a safety briefing as soon as practical upon arrival and prior to starting any work. This will be to introduce them to our system and inform them of our expectations. Pole bands at open points shall be used to identify the work zone. The responding Company's safety rules SHALL be observed as well as our rubber glove, ground to ground rule during the storm and restoration period.

Be advised that NET metering is present on our system and can be identified by a green stripe around meter glass.

A. EVALUATING THE WORK:

Before undertaking any job, a job briefing shall be thoroughly discussed and documented so all personnel shall understand what is to be done, how it is to be done, and the following:

1. Voltage and position of all wires, or cables, and the sources or source of energy.
2. All grounding, cover up and switching procedures shall be observed.
3. That the work at hand can be done safely.
4. That there is a sufficient amount of each kind of protective equipment on hand to thoroughly protect the working position and the work man.
5. They should consider the ground and traffic conditions and arrange to protect and guard these against all hazards.

B. INSULATION:

In cases of trouble following storms, all wires, regardless of normal voltage, are to be considered as being at primary voltage and are not to be handled except with protective equipment because of danger of crosses between primary and secondary circuits. (This is a ground to ground statement) This may be modified on a case by case basis by the joint agreement of the Operations Manager and Safety Coordinator.

C. DISTRIBUTION CIRCUITS ON OR NEAR TRANSMISSION POLES:

If it is necessary to work on the conductors of a distribution circuit carried on or near transmission line poles with the transmission circuit energized and normal, any work on the conductors of the distribution circuits must be done between sets of grounds or else the distribution circuit must be worked and treated as an energized circuit. To determine positively that the lines to be worked are de-energized, test or investigation must be made before grounds are applied.

If the transmission line is also out of service, it must be considered as a possible source from which the distribution circuit may be energized, and it must be definitely determined that the transmission circuit as well as the distribution circuit is de-energized and grounded and the source or sources of supply are open and proper clearance obtained before the distribution circuit may be worked as de-energized.

D. STREET LIGHTING WIRES:

Street lighting wires shall be considered energized at all times and the workman shall protect himself against them with proper protective equipment even when circuits are normally de-energized. Such a line can become

energized by accidental induction or lightning and sometimes street lighting wires become crossed with other energized wires.

E. FUSE CUT-OUT CLEARANCE:

When a distribution circuit is to be de-energized and cleared for working on conductors or other equipment by the opening of a fuse cut-out, either of the enclosed or open type, the fuse holder or tube is to be removed completely from the fuse assembly. The removed fuse holder or tube is to be placed at a safe and conspicuous location away from the fuse cut-out as an indication to other employees. The fuse cut-out shall continue in this open position until the work is completed. In addition, a red "hold" switch tag (with Lineman's name) should be attached to the pole in a conspicuous location and then removed when work is completed.

A pole band SHALL be used to identify who is working beyond the open point.

F. REQUIREMENTS FOR USE OF RUBBER PROTECTIVE APPARATUS:

In case of trouble following storms, all wires, regardless of normal voltage, are to be considered as being at primary voltage and are not to be handled except with protective equipment because of danger of crosses between primary and secondary circuits.

1. Energized Conductors - Rubber gloves must always be worn when working on energized lines or energized conductors or equipment up to 15,000 volts between conductors.

2. Working position - Rubber gloves must be put on before coming in reach of energized conductors when work is done on conductors or protective equipment is to be installed.

Because of the possibility of high voltage existing, rubber gloves must be worn until the conductor is grounded on primary circuits and on street lighting circuits.

Care of Rubber Protective Apparatus - At each job, before a workman puts on his rubber gloves, he should test each glove mechanically for cuts and weak spots by rolling it up tightly, beginning at the gauntlet. All of this type equipment, when not in use, must be stored in dry proper containers or compartment provided for this purpose.

G. SWITCHING ORDERS:

All feeder switching and switching orders shall be communicated to the Operations Manager. In all switching orders, the switches shall be referred to by their numbers and not by the name of the circuit which they control. The sequence, in which the switch numbers are given, in the order, shall indicate the sequence of the switching operation. For example, an order given: "open switches 502-509 and close switches 511-502" shall be executed as follows: first, open switch 502; second, open switch 509; third, close switch 511; fourth, close switch 502.

NO DEVIATION FROM THIS RULE WILL BE PERMITTED.

To avoid misunderstandings and to prevent accidents, all orders concerning switching operation or the handling of lines and equipment must be repeated to the person giving name, and identity of person giving order secured. Likewise, the operator giving an order must secure identity of person to whom it is given. (Three part communication)

All switching orders must be written on a piece of paper by the person receiving same, and this written order must be carried by the person while doing the switching. ***In no case shall anyone attempt to execute a switching order from memory.*** *All switching orders and tags shall be turned into the Safety Coordinator as soon as practical.*

H. HIGH WATER:

During periods of high water involving lines or equipment, patrolmen shall not attempt to swim sections of the patrol which may be submerged. Necessary patrols over flooded areas must be done with boats and in such instances men engaged in these patrols shall wear suitable life belts or jackets.

I. BROKEN CONDUCTORS:

Before climbing pole, check for broken conductors, which may be in contact with pole. Clear before climbing.

6. ANNUAL PREPARATIONS

Storm Director

A. Review emergency procedure prior to May 1 and update as necessary.

B. Develop employee assignments with all personnel prior to June 1.

C. Update status of emergency crew assistance (Contractors, NW Florida, SEE, etc.).

D. Ensure storm shutters, laundry facilities and cooking facilities are available.

E. Ensure that Safety, Logistics, Operations and Engineering have completed pre-storm preparations.

Electric Operations Manager

A. Check all communication equipment for proper operation. Check spare equipment and parts.

B. Check material quantities and emergency stock prior to June 1. Communicate material requests to Stores Manager to purchase the emergency stock approved for purchase prior to an emergency.

C. Have necessary emergency material delivered prior to June 1.

D. Review status of all transportation equipment and have repairs made.

E. Update status of remote storeroom site and trailer(s).

F. Update status of emergency fuel suppliers, on site fuel and mobile fuel suppliers.

G. Update status of vehicle repair facilities.

Safety

A. Review safety precautions with all line crew personnel prior to June 1.

B. Schedule and conduct half day emergency procedure training sessions prior to July 1. Written documentation is to be retained when training is complete.

C. Review assignments with each department by July 1.

Propane/ Natural Gas Operations Manager

A. Check all communication equipment for proper operation. Check spare equipment and parts.

B. Check material quantities and emergency stock prior to June 1. Begin necessary purchasing of emergency stock approved for purchase prior to an emergency.

C. Review safety precautions with all propane and natural gas personnel prior to June 1.

D. Have necessary emergency material delivered prior to June 1.

E. Review status of all transportation equipment and have repairs made.

F. Update status of emergency fuel suppliers, on site fuel and mobile fuel suppliers.

G. Update status of vehicle repair facilities.

Customer Care / Logistics

A. Update the list of critical customers by town/county and provide updates to the Storm Director by June 1. Group the critical customers by town/county by classification:

1) Hospitals and clinics
2) Public utilities
3) Municipal and state emergency service
4) Communication and broadcasting services
5) Major food storage/processing facilities
6) Disaster shelter and motels
7) Correctional facilities
8) Airport

B. Update phone list for employees, law enforcement, emergency management, city/towns, utilities, contractors, tree trimming, personnel, news media, PSC, DCA, EDC, GEO, etc. and provide updates to the Storm Director by June 1.

C. Review emergency telephone arrangements and make additional preliminary arrangements.

D. Update status of motel rooms necessary for emergency/contract crews.

E. Locate sources of food/water for crews and office personnel. Identify local and out of town caterers.

F. Locate sources for provision of the following Division office supplies.

G. Update status of cellular phones.

H. Update the procedure of the Office Operation.

Engineering

A. Update and have on hand the following:

1. Storm safety precautions
2. General operating instructions
3. Distribution maps
4. Single line switching maps
5. City and county maps

B. Have control room and all necessary information and equipment ready for prompt setup. Phone jacks, internet connection and distribution map are minimum requirements.

C. Conduct annual refresher training for personnel required to operate the Outage Management System (OMS).

Crew Leaders

A. Review status of all transportation equipment and have repairs made

B. Verify all vehicles kept filled with fuel

C. Assist with annual refresher training

Warehouse

A. Check material quantities and emergency stock prior to June 1. Begin necessary purchasing of emergency stock approved for purchase prior to an emergency.

B. Have necessary emergency material delivered prior to June 1.

7. INITIATE STORM MODE PLAN

Storm Director

A. Monitor the emergency.

B. Begin making preparations for obtaining emergency assistance from other utilities and contractors.

C. Check the status of personnel on vacation.

D. Handle all media request by relaying contact information to Marketing or Management.

E. Inform all employees as to assignments and emergency information.

F. Consult with the Executive Team concerning activation of Division Emergency Procedures.

G. Consult with Executive Team concerning assistance from other divisions (i.e. mechanics, storeroom, media, family assistance, IT/Communications). Personnel from other divisions will be identified and mobilized. They will move as close as practical to Northeast Florida and then proceed to the office as soon after the emergency as travel can be accomplished safely. This location may change dependent upon the situation.

H. Obtain special job number for all emergency related work.

I. Make determination on when to release personnel to go home and provide instructions to employees.

J. Ensure contact with FPL is established.

Electric Operations Manager

A. Have all vehicles stocked with all necessary emergency materials and fuel.

B. Monitor time/material needs of contractors.

C. Check emergency stock levels and fuel supplies.

D. Review plan to supply power to office and warehouse facility.

E. Check all communication equipment.

F. Review safety precautions with all personnel.

G. Review job assignments with personnel and pass out necessary forms, information.

H. Have all hazardous conditions corrected and construction jobs stabilized.

I. Verify fuel supplier availability.

J. Make arrangements for a boat and trailer suitable for construction.

K. Ensure all vehicle repairs are made and final arrangements with vehicle repair facilities confirmed.

L. Check on emergency generators and secure additional generators if needed.

M. Secure all material in the warehouse yard.

Safety

A. Monitor the Storm.

B. Check and verify that yard and buildings are safe and secure.

Propane/Natural Gas Operations Manager

A. Have all vehicles stocked with all necessary emergency materials and fuel.

B. Monitor time/material needs of contractors.

C. Check emergency stock levels and fuel supplies.

D. Review plan to supply power to bulk plant using backup power supplies.

E. Check all communication equipment.

F. Review safety precautions with all personnel.

G. Review job assignments with personnel and pass out necessary forms, information.

H. Have all hazardous conditions corrected and construction jobs stabilized.

I. Ensure all vehicle repairs are made and final arrangements with vehicle repair facilities confirmed.

J. Secure all material in the warehouse yard.

K. Install Storm Shutters on all offices with the help of natural gas.

L. Place plastic covering over all electronic or sensitive equipment and secure as necessary.

Customer Care/Logistics

A. Arrange for additional petty cash and cash advances (if necessary).

B. Arrange with telephone company additional lines if necessary.

C. Review assignments with personnel.

D. Ensure all computers are backed up and secured.

E. Ensure all paperwork/documents are filed and secured properly.

F. Provide control room with customer list, addresses, phone numbers and account numbers.

G. Work with HR department and personnel from other divisions to provide assistance to employees and their families. Assistance may include work to prevent further damage to homes, care for children, to work with contractors or insurance companies and provide food/lodging/clothing, etc.

H. Make definite arrangements for contract crew lodging.

I. Make definite arrangements for food/water/drinks for all personnel.

J. Purchase food supply for office/warehouse prior to storm (if the severity of the storm warrants this).

K. Run the hurricane report from ORCOM.

L. Make arrangements for an abundant supply of ice.

M. Make definite arrangements for building security.

N. Make definite arrangements for Division Office supplies (See Annual Preparations, Logistics Manager, and Item E.)

O. Place plastic covering over all electronic or sensitive equipment and secure as necessary.

Engineering

A. Provide distribution maps, procedures, etc. as necessary.

B. Ensure OMS is backed up and operating.

C. Begin constant monitoring customer outages.

D. Review the contents of the damage assessment kits.

8. INITIAL STAGE OF THE EMERGENCY

Storm Director

A. Activate the control room located Northeast Florida and constantly monitor the situation and restoration process.

B. Keep internal media sources informed.

C. Plan for additional services that will be needed during the restoration process to include damage assessment teams and mutual assistance crews.

D. Communicate with Nassau County and State EOC on their operations schedule.

Electric Operations Manager

A. Be located at the Northeast Florida Operations Center (if possible) and constantly monitor the situation and restoration process.

B. Coordinate overall restoration process.

C. Begin analyzing trouble.

D. Ensure employees that may be working are secure when wind gusts reach 40 miles per hour.

E. Work with Storm Director to determine restoration requirements.

Safety

A. Prepare for arrival of external crews.

B. Prepare daily safety briefing to be delivered to internal and external crews.

Propane/Natural Gas Operations Manager

A. Be located at the Northeast Florida Operations Center (if possible) and constantly monitor the situation and restoration process.

B. Activate propane restoration process.

C. Coordinate with Engineering.

Customer Care/Logistics

A. Be located at the Northeast Florida Operations Center (if possible) and coordinate the answering and processing of telephone calls.

B. Coordinate assistance to employees and their families.

C. Have food and drinks available to all employees.

D. Work with Operations Manager and begin making final logistical arrangements for outside crews.

Engineering

A. Be located at the Northeast Florida Operations Center (if possible) and Continue processing customer outage system analysis and monitoring system to determine outage locations.

B. Work with Operations Manager to determine restoration requirements.

C. Provide periodic outage updates to the PSC and Nassau County EOC.

9. LOCAL STORM MODE

Storm Director

A. Determine manpower requirement from information provided by Operations Director and Engineering Director. Contact the Executive Team concerning the situation, if possible, and advise whether or not the additional personnel should continue to the Northeast Florida office. If communications are not possible, the Vice President will determine whether or not the team should continue to Northeast Florida or will return home. .

B. Activate additional services that will be needed during the restoration process to include damage assessment teams and mutual assistance crews.

C. Keep the media informed until such time that the Manager of Communications is available. At that time, the Manager of Communications will work with the Storm Director to keep the Media informed.

Electric Operations Manager

A. Initiate damage assessment teams.

B. Prioritize and schedule the restoration process.

C. Make assignments and dispatch crews as necessary in order to ensure orderly and efficient restoration.

D. Provide damage assessment to Storm Director.

E. Provide updates to Storm Director as needed concerning restoration progress.

F. Monitor manpower and equipment requirements and update Storm Director as required.

G. Keep a list of all company and outside crews and their locations.

H. Determine and assign appropriate manpower and equipment for each outage situation.

I. Provide outside crews with all necessary information and safety information.

J. Monitor storeroom and remote storeroom for proper operation and inventory. Analyze manpower requirements.

K. Ensure all documents are completed prior to material leaving the storeroom and storeroom yard.

L. Monitor and provide assistance in repairing vehicles.

Safety

A. Daily safety briefings for internal and external crews.

B. Incident investigations.

C. Field observations.

Propane/Natural Gas Operations Manager

A. Make assignments and dispatch crews as necessary in order to ensure orderly and efficient restoration.

B. Provide damage assessment to Storm Director.

C. Provide updates to Storm Director as needed concerning restoration progress.

D. Monitor manpower and equipment requirements and update Storm Director as required.

E. Keep a list of all company and outside crews and their locations.

F. Determine and assign appropriate manpower and equipment for each situation.

G. Provide outside crews with all necessary information and safety information.

L. Monitor and provide assistance in repairing vehicles.

Customer Care/Logistics

A. Coordinate the answering of telephone calls.

B. Provide petty cash and pay bills as needed.

C. Contact critical customer if the restoration time will be lengthy.

D. Provide assistance and serve as liaison to employees and their families.

E. Make final and definite arrangements for lodging, fuel, meals, snacks, coffee, drinks, etc. for all employees and contract employees.

F. Check-in all outside crews and log the personnel and equipment included. Provide assistance with lodging, meals, etc. and keep up with crew locations.

G. Provide assistance as needed.

H. Ensure building security firm is operating at office.

I. Ensure Division office supplies are in place if needed.

J. Ensure caters are available as needed.

Engineering

A. Continue processing customer outage system analysis and monitoring the system to determine outage locations.

B. Work with Storm Director and Operations Director to determine restoration requirements.

C. Provide periodic outage updates to the PSC and Nassau County EOC.

10. Operating Procedure

These instructions are intended to give the employee working on the line information as to the general procedure to be followed under hurricane conditions.

The Electric Operations Manager and Safety will review these instructions with employees each year so that they may become familiar with the details. This should be done before June 1of each year.

A. BEFORE THE STORM

All operating personnel should be instructed as to:

1. Safety and operating procedures to be followed during the storm.
2. Where and when materials and supplies will be available.
3. Their assigned areas and supervisor.
4. Any provisions made for feeding and lodging.
5. Work days will normally be two shifts. Each shift will consist of at least 12 hours but could be 16 hours.
6. The necessity of dividing line crews for clearing and minor repairs.
7. Internet and telephone communication procedures with appropriate list of telephone numbers.

B. DURING THE STORM

1) First Stage - Repairing All Cases Reported

In order to reduce the over-all outage time to customers who may be interrupted at the beginning of the storm, trouble will be handled in a normal manner during the early stages.

2) Second Stage - Clearing Trouble From the Lines

In order to maintain service to essential customers and feeders; when the volume of trouble increases to the point where large areas are interrupted, the Operations Manager will instruct crews to clear trouble from the lines without making repairs.

a. Secondary or service wires may be cleared by cutting the conductor away from energized lines or by opening the transformer cut-out.

b. Damaged primary conductors may be cleared by cutting and rolling back, a primary jumper or conductor at the cross arm or by sectionalizing switching, if applicable.

3) Third Stage - De-energizing Main Lines

When the winds reach the point where it is no longer safe for crews to continue clearing operations all restoration activities will cease. The Operations Manager may instruct crews to de-energize main line feeders at substations if necessary to clear extremely hazardous conditions.

C. AFTER THE STORM

The sequence of restoration after the winds subside to a safe working level will be as follows:

1) Check substations (Investigation) – Asses Damages

a. Verify Transmission Service
b. Asses Equipment Damage
c. Identify Feeder Lockouts

2) Transmission Line Patrols

a. FPL/JEA switch yards to Step-down
b. Step-down to AIP
c. Step-down to JLT
d. JLT to Eight Flags CHP and both mills

3) Isolate & Restore Process

This phase will be occurring immediately following the passing of the storm and the area has been designated as being safe. The Storm Director will identify feeders that are out and prioritizing them for the ***isolate and restore*** process based upon the priority feeder list and observed outages. Feeder patrols shall be performed by two man crews.

4) Damage Assessments

After the isolate and restore phase, the damage assessment (DA) teams will patrol the backbone portion of the feeders that ***have been isolated and restored first***.

5) Restoration Order

A. Feeders
B. Undamaged primaries (fuse replacement only)
C. Damaged primaries
D. Secondary's
E. Services
F. Street lights

11. TELEPHONE OPERATORS GUIDE

During any major interruption our customers will naturally be concerned about falling wires, burning wires, defrosting refrigeration and even their daily routines in which electricity plays a part. The most important test we have is maintaining good relations during these emergencies. Those employees answering telephones must keep this in mind - be calm, pleasant and sympathetic with the customer and at the same time getting the necessary information needed to clear dangerous conditions and restore service as soon as possible, giving as much information to the customer that is available.

Outlined below is a suggested procedure to be used during three different phases of an interruption (Management will determine when Phase 1 begins and when movement to Phase 2 and 3 is indicated):

Phase 1 - will be in effect until the time of the first trouble calls are worked or until it is evident that there is a widespread damage in that area.

Phase 2 - will be in effect following Phase 1 until damage evaluations have been made and estimate of the time required for making major repairs.

Phase 3 - will begin in an area where an estimate of the time required to make major repairs is available and will continue until all trouble is clear.

Your supervisor will advise you when conditions change from one phase to another in accordance with the routines outlined below:

Suggested Answering Routine to be used by All Operators

Phase 1 - Early Trouble Prior to Extensive Damage

1. "Florida Public Utilities, May we help you please."

   a. If no lights, no power, lights dim, ask: "What is your name, address and telephone number please?"
   b. If wire down, pole broken, tree on a line, ask:
      1) "Is the wire burning?"
      2) "Are your lights working?"
      3) "We hope to be able to make repairs shortly. Thank you very much for calling."

Phase 2 - Extensive Damage Evident But Estimate of Repair Time Not Available

1. "Florida Public Utilities, May we help you please."

   a. If no lights, no power, lights dim, ask: "What your name is, address and telephone number please?"
   b. If wire down, pole broken, tree on a line, ask:
      1) "Is the wire burning?"
      2) "Are your lights working?"
      3) "Our electric system has suffered considerable damage in your area and we haven't been able to make an estimate of the time required for repairs. Our crews are working now and if your service has not been restored by (morning/afternoon) please call again. Thank you."

Phase 3 - Damage Evaluated and Repair Time Estimated

1. "Florida Public Utilities, May we help you please."

   a. If no lights, no power, lights dim, ask: "What your name is, address and telephone number please?"

   b. If wire down, pole broken, tree on a line, ask:

      1) "Is the wire burning?"
      2) "Are your lights working?"
      3) "We have crews working on the lines which serve your area and repairs should be made by (time). If your electricity us not on by that time, please call again. Thank you."

Call Operators Guide (if needed)

Remember a properly handled telephone conversation with a customer can create an immeasurable amount of good will. When conversing with customers, keep the following points in mind:

1. Be courteous to each customer.
2. Give him/her as much information as is available of the restoration work.
3. Record each call and report the information vital to restoring the customer's service.

4. Handle each call as briefly as possible.
5. Thank the customer for calling.
6. Do not give the news media information. If a request for new information is received, record the name of the individual, news organization, telephone number and specific request. Inform the caller that a company representative will return the call. The information should be sent immediately to the Electric Operations Manager, Northeast Florida.
7. During an emergency condition, some customers will contact the company for reasons that do not pertain to the emergency. These calls should be recorded and the exact customer needs should be stated in the remarks column. These calls may include disconnections, reconnections, etc., or may be a personal call to an employee. After the contact has been recorded, the completed form should be given directly to the supervisor.

Entering Outages

Each customer call will be recorded in the Outage Management System (OMS). The information entered should be entered accurately to ensure the system operates properly. The information entered will be stored as a permanent record and will be used to analyze the nature of the outages.

Should emergency situations come to your attention, please notify a supervisor. The method of this documentation will be determined.

12. MEDIA/PUBLIC INFORMATION GUIDE

In order to monitor all information given to media and public sources, only Upper Management, Northeast Florida, Manager of Communications or their designee will make press releases. If other employees are asked by media or public agencies for information, politely ask them to call (888) 843-5121 for the latest information.

13. WAREHOUSE PROCEDURE

During an emergency, material is vital to promptly and efficiently restore service to all customers. It is therefore important to monitor all stock levels to ensure adequate supplies are on-hand and if stock levels get low, be able to quickly order additional materials.

All material taken from the storeroom or remote storeroom will have the appropriate documentation completed before being removed from the stores area. The stores personnel will ensure this is followed.

Only authorized personnel should be in the stores area. Stores personnel will monitor those in the stores area to ensure compliance.

14. OFFICE PROCEDURE

This section will involve that information and other procedures necessary to ensure that the Office operation continues to operate during any emergency that may occur.

Annual

1. The Customer Service Manager will update information regarding the Office operations.
2 Information about the contingency plan will be updated by the Customer Service Manager each year.

Prior to the Emergency

1. The Electric Operations Manager and Customer Service Manager will decide on the appropriate contingency plan necessary based on the emergency situation and begin contingency operations.
2. The Customer Service Manager will ensure that protective covering is available and installed on all Office equipment and server to ensure damage, if any, is minimized.

After the Emergency

Contingency Plan #1

1. Due to the damage to the NE FL facilities, all mail and payments will go directly to the Northwest Florida office. This may not be the best alternative due to the issues with the USPS but is the most practical.
2. NW Florida personnel will process the mail using personnel as needed. Deposits will be made normally on a daily basis.
3. As soon as NE FL is capable of processing payments normally, payment processing will be handled normally.

Contingency Plan #2

1. Due to the inability of the Corporate Office to accept updated information from the Office, it will be necessary to send payment information to a remote location.
2. NE FL will continue to process payments normally and make deposits accordingly.
3. The IT Director will provide NE FL with the appropriate directions on where to send the information concerning payments. This information will be added to this procedure when it becomes available.
4. All information on payments will be saved to a CD on a daily basis and stored in a safe place. If possible a hard copy of the information should also be printed and stored in a safe place

15. Personnel Backup Contingencies

Should the following personnel not be available during the emergencies, personnel in the positions listed below that position will fill in as needed.

AVP of Electric
Director, Electric Operations

Director, Electric Operations
Manager, Electric Operations

Propane Operations Manager
Natural Gas Operations Supervisor

Engineering
Technical Projects Manager

Customer Care Director
Customer Care Manager

16. EMPLOYEE ASSIGNMENTS

TENTATIVE SCHEDULE

DAY SHIFT Begin at 6:00 AM		**NIGHT SHIFT** Begin at 6:00 PM	
OFFICE		**OFFICE**	
Buddy Shelley		David Gimore	Customer Care Supervisor
Chris Hebert	Dir. Electric Operations	Mia Goins	Telephone
Curtis Boatright	Engineering		
Mark Cutshaw	Dir. Generation & Pipeline Dev.		Telephone
Sean Ramey	Customer Service Manager	TBD	Logistics
Vicki Brand	Propane Operations	Shane Magnus	Engineering
Mary Atkins	Engineering	Jorge Puentes	Engineering Manager
Jarvis Hunter	Engineering	**SERVICE CREWS**	
David Richardson	EOC Rep	Justin Beverly	Senior Lineman
Dwane Ziller	Logistics	Josh Weider	Apprentice Lineman
Christine Minton	Logistics		
Renee Bolyard	Telephone	**OFFICE/DAMAGE ASSESSOR/GUIDE**	
TBD	Telephone		
			Telephone/Damage
TBD	Telephone	Jevon Brown	Assessor
LINE CREWS			
		PROPANE OPERATIONS	
Billy Clardy	Crew Leader	TBD	Propane Clerk
Donnie Maxwell	Crew Leader	Thomas Stanley	Gas Utility Worker
John Ashton	Senior Lineman	**NATURAL GAS**	**OPERATIONS**
Quade Gilmore	Apprentice Lineman	Vicki Brand	Gas Supervisor
		Rod Calhoun	Gas Service Tech
SERVICE CREWS			
John Polk	Senior Lineman	**DAY SHIFT (CONTINUED)**	
Gerald Marvin	Apprentice Lineman	Begin at 6:00 AM	
		Natural Gas	**Operations**
		Cedric Mitchell –In WPB	Service Tech
Brent Davis	IMC Tech		
STORES			
Donna Fowler	Stores Manager	**PROPANE OPERATIONS**	
Randy Moore	Warehouse Assistant	Vicki Brand	Propane Supervisor
	-	James Moore	Propane Operator II
		Jody Montgomery	Gas Utility Worker
DAMAGE ASSESSORS/GUIDE			
Lewis Peacock	Damage Assessor/Guide		**SAFETY**
TBD	Damage Assessor/Guide	Kevin Metts	Safety, Training & Compliance
TBD	Damage Assessor/Guide		

17. EMERGENCY ASSISTANCE LIST up-dated 2-4-15

Company	Contact	Telephone	Available Resources
Southeast Electric Exchange	Scott Smith	(404) 233-1188 (404) 357-6800 cell	Crews
FPU-Marianna	Rhondon Gray	(850)557-6490 cell	Crews, Tree Crews, Support
ATT	Marvin Fisher Scott Miller	(904) 727-1544 (904) 403-1894 (904) 407-2569 (904) 238-8263 cell	Engineering Engineering
Comcast	Mike Jackson	(904) 626-2400 1-855-962-8525..3..1..HFC	Day contact After hours answering serv.
Quantas/Dillard Smith	Brian Imsand	(423) 490-2206	Crews
Pike Electric Coop	Barry McCarthy bmccarty@pike.cor	(912) 258-0645 cell (850) 632-5769 home	Crews
Public Service Commission	Rick Moses (EOC)	(850) 431-6582 (850) 408-4757 cell	Primary contact
PSC	Tom Ballinger	(850) 413-6680	Backup contact
Florida Electric Power Coordination Group	Stacy Dochoda	(813) 207-7960	Crews
Mastec	Ron Martin VP	(850) 519-0639 cell	Crews
C & C Powerline	Rick Springer rick@ccpowerline.(	(904) 751-6020 (904) 759-4703	Crews
Davey	Mike Mittiga	(407) 383-0648 mobile	Tree Crews
Asplundh	Ronnie Collins	(352) 256-2370 cell	Tree Crews
FPL	Dispatcher	(904) 665-7152	Power Supply
LE Myers	RJ	(407) 466-4663	Crews

Vehicle Repairs Assistance			
Company	**Contact**	**Telephone**	**Available Resources**
Altec	Bobby Knittel	(352) 303-3894	Service Technician Supervisc
Altec	Bobby.knittle@altec.com	1-877-462-5832	
Altec	Daniel	(904) 404-6458 (229) 375-9696	Mobile Service Tech
Dickinson Fleet	Aaron	(321)872-4187	
First Coast Fab.	Chris Wolf	(904) 849-7426	Welding And Machine Work
Maudlin International Trucks	Jerry Green Steve Brozek	(904)509-0012 (904) 783-9822	Truck repairs and Parts Asst. Service Manager
Moeller	George Moeller	(904) 415-2094	Vehicle Repairs and Welding
Napa	Brett Davis (Manager)	(904) 261-4044	Parts and Tools
Power Pro-Tech	Jimmy Evans	(800) 437 4474	Generator Repairs
Generator & HVAC Service	James Stamper **Onsite Emergency**	1-800-437-4474 321-274-8578 **888-218-0298** **678-566-2439**	**780 Amelia Island Pkwy**
Tiresoles	Pete Shannon Pat Demianenko	(904) 378-0090 Cell (904) 536-6460	Main Office Operations Manager

18. EMERGENCY STOCK REQUIREMENTS

See next 4 pages

Bin#	Description	Qty Required
EWC04S	WIRE,#4 CU SD SOLID POLY,TX RISER WIRE (SPOOL)	1000
EWC04	WIRE,#4 BARE SOL CU SD OH (SPOOL)	1000
EWA04S	WIRE,#4 AL OH SOFT TIE (SPOOL)	1000
EWB010	WIRE,1/0 BARE STD AL OH (AZUSA)	1000
EWB040	WIRE,4/0 BARE STD AL OH (ALLIANCE)	1000
EWB396	WIRE,396.4 BARE STD AL OH (CANTON)	1000
EWB477	WIRE,#477 BARE STD AL OH (COSMOS)	1000
EWB636	WIRE,#636 BARE STD AL OH (ORCHID)	1000
EWD02	WIRE,#2 AL DUPLEX OH (DOBERMAN/XLP)	1000
EWD06	WIRE,#6 AL DUPLEX OH (COIL)(SHEPPARD)	600
EWT010C	WIRE,1/0 TRIPLEX OH (COIL)(GAMMARUS)	1000
EWT010R	WIRE,1/0 TRIPLEX OH (REEL)(GAMMARUS)	1000
EWT040	WIRE,4/0 STD TRIPLEX AL OH (LAPAS)	500
EWQ01	WIRE,1/0 QUAD AL OH (SHETLAND)	200
EWG38	WIRE,GUY 3/8 BEZINAL COATED	1000
EWA02	WIRE,#2 AL URD 15KV	3000
EW040	WIRE,4/0 INS STD AL URD 15KV	6000
EW750	WIRE,750MCM AL URD 15 KV	3000
EW1000	WIRE, 1000KCM AL URD 15KV	1000
EFAS510	ANCHOR SCREW 5' X 10"	10
EFAS810	ANCHOR SCREW 8' X 10"	10
EARL9	ARRESTOR,LIGHTNING,SILICONE 9 KV	20
EARL69	ARRESTOR, LIGHTNING, PROTECTA*LITE,MCOV 69KV	20
EBRA	BRACKET MOUNT AL "SINGLE"	10
EBRA1	BRACKET MOUNT AL "T"	10
EBRF15	BRACKET, SINGLE INSUL,FIBERGLASS,HORIZ	20
EBRAHD	BRACKET,MOUNTING,AL HEAVY DUTY	10
ECGR63	CLAMP,GROUND ROD 5/8"	20
EFCGR63	COUPLING GROUND ROD 5/8, CU CLAD(NON-THREAD)	50
ECHTC7	COVER,H-TAP #C7	200
ECOSS	CUTOUT,SILICONE,SEACOAST	50
ECOF200	FUSEHOLDER,200A CUTOUT	20
ECOF100	FUSEHOLDER,100A CUTOUT	10
EGA336	GUARD,LINE 336.4 MCM AL OR ACSR	30

EGA477	GUARD,LINE 477 MCM AL OR ACSR	30
EGSQ	GUARD,SQUIRREL	10
EIS35	INSULATOR,UPRIGHT 35 KV SILICONE	30
EIH35	INSULATOR,HORIZ MOUNT 35KV SILICONE INT BASE	60
EISS25	INSULATOR,SUSPENSION SILICONE 25 KV	20
EIGB8	INSULATOR,GUY STRAIN 8 FT	10
EIGB8HD	INSULATOR,GUY STRAIN 8 FT 36000 LB	10
EMBRSP	MOUNT,TX,BRACKET, SINGLE PHASE	10
EMCL4	MOUNT,TX CLUSTER AL ABOVE 3-50KVA	4
EPW304	POLE,30 CL 4	15
EPW351	POLE,35 CL 1	10
EPW401	POLE,40 CL 1	20
EPW451	POLE,45 CL 1	20
EPW45H1	POLE,45 CL H1	3
EPW501	POLE,50 CL 1	3
EPW55H1	POLE,55 CLH1	1
EPW70H3	POLE,70 CLH3	5
ERG638	ROD-GROUND COPPER CLAD 5/8" X 8' NON-THRD	30
EESU	SWITCH,UNDERSLUNG	6
ECLDE	CLAMP,DEADEND,#6-#4 AL SERVICE WEDGE	20
ECLDE2	CLAMP,DEADEND,#2-1/0 AL SERVICE WEDGE	40
ECLDE4	CLAMP,DEADEND,4/0 AL SERVICE WEDGE	40
ECOHA	CONN,H-TYPE (WR9)	50
ECOHA	CONN,H-TYPE (WR159)	100
ECOHA	CONN,H-TYPE (WR189)	100
ECOHA	CONN,H-TYPE (WR259)	100
ECOHA	CONN,H-TYPE (WR379)	100
ECOHA	CONN,H-TYPE (WR399)	100
ECOHA	CONN,H-TYPE (WR419)	100
ECOHA	CONN,H-TYPE (NB500-40)	30
ECOHA	CONN,H-TYPE (NB500)	30
ECOVA4	CONN,VISE ACTION #4 CU	100
ECOVA2	CONN,VISE ACTION #2 SOL CU	100
ECOVA2	CONN,VISE ACTION -#2 STD CU	100
ECOVA10	CONNECT-VISE ACTION 1/0 STD CU	100
ECOVA40	CONN,VISE ACTION -4/0 STD CU	100
ECOFS4	CONN,URD FLOOD SEAL 4 POSITION	30
ECOOH6	CONN,TX,OH,6 POSITION	25

EDEC02	DEADEND,AUTOMATIC SS #2 STD CU	20
EDEC010	DEADEND,AUTOMATIC SS 1/0 STD CU	20
EDEC020	DEADEND,AUTOMATIC SS 2/0 STD CU	10
EDEC040	DEADEND,AUTOMATIC SS 4/0 STD CU	20
EDEC477	DEADEND,FULL TENSION,COMP477 AL W/2 HOLE LUG	15
EDEC636	DEADEND,FULL TENSION,COMPRESSION 636	15
ELUGT0202	LUG,TERM,URD 2/0 AL 2-HOLE	50
ELUGT0401	LUG,TERM,URD 4/0 AL 1-HOLE	50
ESLA8CU	SLEEVE,AUTO SPLICE -#6 SOL CU	20
ESLA6CU	SLEEVE,AUTO SPLICE -#4 SOL CU	20
ESLA4CU	SLEEVE,AUTO SPLICE -2 SOL CU	20
ESLA2CU	SLEEVE,AUTO SPLICE #2 STD CU	20
ESLA10CU	SLEEVE,AUTO SPLICE 1/0 CU	20
ESLA40CU	SLEEVE,AUTO SPLICE 4/0 STR CU	20
ESLS020	SLEEVE,SERVICE 2/0-2/0 AL/ACSR (IKL47)	100
ESLS040	SLEEVE,SERVICE 4/0-1/0 AL (IKL66)	100
ESLS040	SLEEVE,SERVICE 4/0-2/0 AL (IKL67)	100
ESLS040	SLEEVE,SERVICE 4/0-4/0 AL (IKL69)	100
ESLS350	SLEEVE,SERVICE 350-350 AL	50
ESLT2A	SLEEVE,FULL TENSION #2 STD AL	20
ESLTE10A	SLEEVE,SERVICE FULL TENSION 1/0 STD AL	20
ESLTE40	SLEEVE,PRIMARY FULL TENSION 4/0 AL	20
ESLTE396	SLEEVE,PRIMARY FULL TENSION 397.5(396.4)	20
ESLTE477	SLEEVE,PRIMARY FULL TENSION 477 AL	20
ESLTE636	SLEEVE,PRIMARY FULL TENSION 636 AAC	20
ESP2AL	SPLICE KIT,URD 15KV #2 STD AL	12
ESP40AL	SPLICE KIT,URD 15KV-4/0 AL	12
ESKC1000	SPLICE KIT, 500-1000	12
EPT02A	TERMINAL,PIN #2STD AL	50
EPT010A	TERMINAL,PIN 1/0 STD AL	50
EPT020A	TERMINAL,PIN 2/0 STD AL	50
EPT040A	TERMINAL,PIN 4/0 STD AL	50
EPT350A	TERMINAL,PIN 350 AL	10
EPT500A	TERMINAL,PIN 500 AL	10
EFULI007	FUSE LINK 7 AMP QA	75
EFULI015	FUSE LINK 15 AMP QA	50
EFULI025	FUSE LINK 25 AMP QA	50
EFULI030	FUSE LINK 30 AMP QA	75

EFULI050	FUSE LINK 50 AMP QA	75
EFULI075	FUSE LINK 75 AMP QA	25
EFULI100	FUSE LINK 100 AMP QA	25
EKTA2	KITS,TERM OH FOR #2 AL POTHEAD	20
EKTA250	KIT,TERM SILICONE FOR #2 AL -4/0 URD	10
EKTA40	KIT,TERM OH,SILICONE FOR 4/0 AL POTHEAD	20
ELBT2	ELBOW,LOAD BREAK TERMINATOR #2 W/TEST POINT	20
ELBT40	TERMINATOR,LOAD BREAK 4/0 W/TEST POINT	20
EVSPE	VAULT,SECONDARY,PEDESTAL	6
N/S	#2 Extended Repair Elbows	12
N/S	#2/0 Extended Repair Elbows	12
N/S	#4/0 Extended Repair Elbows	12
NS 35-1185	ATTACHMENT,DOWN GUY	20
NS 35-1186	ATTACHMENT,DOWN GUY (POLE PLATE) WOOD 35MLB	10
NS 35-1187	ATTACHMENT,DOWN GUY CONCRETE 35MLB	10
NS 35-1350	BOLT,DOUBLE ARMING,GALV 5/8 X 18	30
NS 35-1360	BOLT,DOUBLE ARMING,GALV 5/8 X 20	20
NS 35-1430	BOLT,DOUBLE ARMING,GALV 3/4 X 22	20
NS 35-1480	BOLT,DOUBLE UPSET,GALV 5/8 X 12	20
NS 35-1640	BOLT,MACHINE,GALV 5/8 X 10	100
NS 35-1650	BOLT,MACHINE,GALV 5/8 X 12	100
NS 35-1660	BOLT,MACHINE,GALV 5/8 X 14	100
NS 35-1800	BOLT,MACHINE,GALV 3/4 X 20	50
NS 35-1810	BOLT,MACHINE,GALV 3/4 X 22	50
NS 35-1820	BOLT,MACHINE,GALV 3/4 X 24	50
NS 35-1850	EYELET, 3/4" HOLE	50
NS 35-2245	CLAMP SUPPORT FOR #2,1/0,4/0 CU	50
NS 35-2255	CLAMP SUPPORT FOR #2,1/0,4/0 AL	50
NS 35-2265	CLAMP SUPPORT 394.6-477 AL	50
NS 35-2375	CLEVIS,SECONDARY EXTENSION	20
NS 35-2780	EYELET,THIMBLE ANGLE 5/8"	20
NS 35-2895	GUY GRIP,3/8", BEZINAL COATED (352895)	100
NS 35-3130	LAG SCREW - 1/2"X4" GALV.	150
NS 35-3290	NUT EYE,GALV 5/8	30
NS 35-3300	NUT EYE,GALV 3/4	30
NS 35-3320	NUT,THIMBLE EYE 5/8	20
NS 35-3881	STRAP,CONDUIT OR PIPE 2" STAINLESS STEEL	40
NS 35-3886	STRAP,CONDUIT OR PIPE 3" STAINLESS STEEL	40

NS 35-3970	**TAPE,SCOTCH #23-2**	**20**
NS 35-4020	**TAPE,VINYL**	**50**
NS 35-4030	**THIMBLE,GUY WIRE 3/8**	**200**
NS 35-4335	**WASHER,DOUBLE COIL 5/8"**	**200**
NS	**DEADEND, #4-4/0 MACHANICAL**	**50**
NS	**DEADEND, 4/0-600 MACHANICAL**	**50**
	Transformer, Pad Mount 100 KVA 120/240	**7**
	Transformer, Pad Mount 50 KVA 120/240	**7**
	Transformer, Pad Mount 75 KVA 120/240	**7**
	Transformer, Pad Mount 167 KVA 120/240	**2**
	Transformer, Pad Mount 150 KVA 120/208	**4**
	Transformer, Pad Mount 300 KVA 120/208	**3**
	Transformer, Pad Mount 500 KVA 120/208	**3**
	Transformer, Pad Mount 150 KVA 277/480	**3**
	Transformer, Pad Mount 300 KVA 277/480	**3**
	Transformer, Pad Mount 500 KVA 277/480	**3**

19. TRANSPORTATION AND COMMUNICATION EQUIPMENT

Unit #	Tag / Mo.	Year	Model	Body Type	Dept. Code	Employee	comments
691A	GBP243	1982		Trailer	EL451	Reel Trailer	
692A	GBP172	1982		Trailer	EL451	Reel Trailer	
705A	GBP174	1992		Trailer	EL452	Equipment Trailer	
708A	GBP225	1998		Trailer	EL452	Equipment Trailer	
754	GBP383	1999		Trailer	EL451	Reel Trailer	
755	GBP444	1999		Trailer	EL451	Reel Trailer	
763A	GBC971	2000		Trailer	EL452	Equipment Trailer	
786	GBC996	2002		Trailer	EL451	Lawn Maint. Trailer	
790	GBP173	2003	CZ12KP	Trailer	EL451	Pole Trailer	
795	K413CK	2006	Trail Blazer	SUV	CS411	Customer Service	
796	T004DR	2006	Silverado	Pickup	EL451	On-Call	
798	GA4363	2005	7400	Digger Derrick	EL452	Electric Line	
810	GBP661	2011	4300	Bucket	EL451	Electric Line	
812	GBC945	2010	Ranger	Comp. P/U	EN450	Randy Moore	
814	694NVX	2010	F-150	Pickup	EL451	Jarvis Hunter	
817	GBC976	2011	Ranger	Comp. P/U	EL452	Lewis Peacock	
818	GBC974	2011	Ranger	Comp. P/U	EL452	Josh Rowe	
819	GBC980	2011	Ranger	Comp. P/U	EL452	Meter	
820	GBC973	2011	Ranger	Comp. P/U	EL452	Jevon Brown	
821	GBC988	2011	F-350	Utility	EN450	NE Electric	
822	GBC957	2012	F-550	Utility	EL451	NE Electric	
825	GA1943	2012	M2-106	Bucket	EL451	John Polk	
826	BMDJ06	2013	Explorer	SUV	GM440	Mark Cutshaw	
828	BMDJ19	2012	F-150	Pickup	EL451	Curtis Boatright	
829	GBC970	2013	F-150	Pickup	EN450	Electric Call Truck	
830	T005DR	2013	Fusion	Sedan	CS411	Roger LaCharite	
831	GBF938	2013	F-250	Utility	EN450	Brent Davis	
832	GA9255	2013	M2-106	Bucket	EL451	Billy Clardy	
833	GA9256	2014	M2-106	Digger	EL451	Spare	

				Derrick			
834	GBC968	2013	185DPQ	Trailer	EL451	Air Compressor	
999	EJLV47	2015	F-150 4x4	Pickup	SM711	Kevin Metts	
155	GBU483	2004	F550	Utility Welder	OP450	NE Gas Ops Spare	
213	GBC953	2010	Express 2500	Van	OP450	NE Gas Ops On-Call	
787	GA4431	2002	4300	Bobtail	PR450	Spare	
793	GBQ063	2005	BC/M2	Bobtail	PR450	Thomas Stanley	
797	GBZ814	2006	F550	Utility	PR450	James Moore	
803	GA0302	2008	4300	Bobtail	PR450	Jody Montgomery	
805	GBC966	1982		Trailer	PR450	Equipment Trailer	
806	GBC897	2000	HSE16	Trailer	PR450	Equipment Trailer	
807	GBF941	2001	F550	Utility	PR450	On-Call Truck	
815	GBZ807	2006	RF6101	Trailer	PR450	Equipment Trailer	
		2007		Forklift	WH450		
		2012		Forklift	WH450		
		1994		Generator	EL451		
		2001		Excavator	EL452		
		2009		Mower	EL451		
		2006		Generator	PR450		
		2000		Compress	PR450		
		2001		Trencher	PR450		

20. CRITICAL CUSTOMER LIST

A. Hospitals, Clinics, Nursing Homes

Name	Address	Telephone	Contact Person
Baptist Medical Center - Nassau	1700 East Lime St	321-3500 (main)	Wayne Arnold
Care Centers of Nassau	95146 Hendrix	261-5518 753-3575 Home	Patrick Kennedy
Quality Health	1625 Lime St	261-0771 225-2351 (Answer service)	Steve Jordan
DaVita (Dialysis)	1525 Lime St, Ste 120	491-1998	Jackie Pelfrey
Nassau County Health Dept	30 South 4th St.	548-1860 or 548-1800	
Savannah Grand Home 321-3478	1900 Amelia Trace Ct.	321-0898 Cell 206-2774	Renee Stoffel
Osprey Village	76 Osprey Village Dr.	277-3337 x11 Cell 753-2435	Dana Sargent
Jane Adams House	1550 Nectarine St	261-9494 Cell 583-3526	Jeanett Adams

B. Public Utilities & Major Resorts

Name	Address	Telephone	Contact Person
Fernandina Waste Water/Water	1007 South 5th St	277-7380 Ext. 224 753-1412 (cell)	John Mandrick
Nassau Utilities	5390 First Coast Hwy	530-6450 753-2989 261-9452 After Hours	Danny White
JEA Dispatch		904-665-7152	
Florida Power and Light		(305) 442-5739	Dispatch Number
Comcast		904-374-7600	
ATT	1910 S. 8th St	727-1544 (904) 403-1894 407-2569 (904) 238-8263(cell)	Marvin Fisher Scott Miller
AIP – Security		277-5914 491-4445	Alan Barker
Ritz Carlton		277-1100 491-6799	Will Wiest

C. Major Disaster Shelters &Hotels

Name	Address	Telephone	Contact Person
Yulee Elementary	86083 Felmore Rd.	225-5192	
Yulee High School	85375 Miner Rd.	225-8641	
Yulee Middle School	85439 Miner Rd.	491-7944	
Yulee Primary	Goodbread Road	491-7945	
Hilliard Schools			
Callahan Schools			
Bryceville Elementary School			

See page 34 of this document for a storm shelter map.

Nassau Holiday	Hwy 17, Yulee	225-2397	
Amelia Hotel	1997 So. Fletcher Ave	261-5735	
Amelia South Condo's	3350 So. Fletcher Ave	261-7991	
Beachside Motel	3172 So. Fletcher Ave	261-4236	
Elizabeth Pointe Lodge	98 So. Fletcher Ave.	277-4851	
Days Inn	2707 Sadler Road	277-2300	
Hampton Inn	2549 Sadler Road	321-1111	
Residence Inn	2301 Sadler Road	2772440	
Holiday Inn	76071 Sidney Place	849-0200	
Hampton Inn (downtown)	19 South 2nd St	491-4911	

Comfort Suites	2801 Atlantic Ave.	261-0193

D. Municipal and State Emergency Services

Name	Address	Telephone	Contact Person
Florida Highway Patrol	Jacksonville	695-4115	Keith Gaston
American Red Cross	NE Chapter	358-8091	
Fernandina Police Dept.	Lime St.	277-7342	Dispatcher
Dept. of Transportation	Jacksonville	360.5400	
HAZ MAT – Chemtrec (free hotline)		800-424-9300	
Chlorine Institute		1-703-741-5760	

E. Communication and Broadcasting Services

Name	Address	Telephone	Contact Person
WOKV Radio		245-8866	
		Cell 718-7503	
WQIK Radio		636-0507	
WAPE Radio		245-8500/01	

F. Major Food Storage/Processing Facilities

Name	Address	Telephone	Contact Person
Publix Super Market	1421 So. 14th St	277-4911	
Winn Dixie Stores	1722 So. 8th St	277-2539	
Hedges Meat Shoppe	Hwy 17 South	225-9709	
Winn Dixie (Yulee)	22 Lofton Sq	261-6100	
Harris Teeter	4800 1st Coast Hwy	491-1213	
Super Wal Mart	SR 200	261-9410	

G. Correction Facilities

Name	Address	Telephone	Contact Person
Nassau House	1781 Lisa Ave.	277-4244	

H. Airports

Name	Address	Telephone	Contact Person
McGill Aviation Inc.	F.B. Airport	261-7890	Sean McGill

G. News Media

Name	Address	Telephone	Contact Person
Fernandina News Leader		261-3696	Fax 261-3698

21. Emergency Telephone List

A. **Telephone Repair**

AT & T	(904) 403-1894	Marvin Fisher
	(904) 238-8263	Scott Miller
Comcast (Cabling & repair)	(904) 626-2400 cell	(Day) Mike Jackson
	855-962-8525	(After hours)

B. **Cell Phones**

IT	(302) 363-7112	Ed Rees

C. **Jacksonville Electric Authority** 800-683-5542

Dispatcher	(904) 665-4806	
Dispatcher Supervisor	(904) 887-1811	Matt Seeley
Storm Coordinator	(904) 665-7145	Garry Baker
	(904) 665-7110	Ricky Erixton
SOC (System Operation Center)	(904) 665-4806	
SWITCHING ACTIVITY (all)	(904) 277-1478	TURBINE OPERATOR

D. **Emergency Management**

Nassau County	(904)548-4980	Bill Estep

E. **Law Enforcement - 911**

Nassau County	225-0331	Sheriff – Bill Leeper
F.B. City	277-7342	City Police Chief – James Hurley

F. **Ambulance - 911**

G. **News Media**

WJWB-Channel 17 Jacksonville	641-1700	Fax 642-7201
WJXT-Channel 4 Jacksonville	399-4000	Fax 393-9822
WTLV-Channel 12 Jacksonville	633-8808	Fax 633-8899
WTEV-Channel 47 Jacksonville	564-1599	Fax 642-5665

H. **Nassau County Officials**

Billy Estep	548-0900	Nassau County EOC Director
Michael Mullin - County Manager	530-6010	Nassau County
Nassau County Office	530-6010	
Aaron Bell		County Commissioner
Thomas Ford		County Commissioner
Danny Leeper		County Commissioner
Justin Taylor		County Commissioner
Pat Edwards		County Commissioner

I. **Fernandina Beach Officials**

Johnny Miller – City Mayor	(W) 556-3299	
Dale Martin - City Manager	(W) 277-7305 or 310-3100	
Ty Silcox - City Fire Chief	(W) 904-277-7331	
James Hurley - City Police Chief	(W) 277-7344	
Johnny Miller	556-3299	Mayor (City FB)
Philip Chapman III	624-5590	City Commissioner
Ronald Ross	410-394-0220	City Commissioner
Len Kreger	432-8389	Vice Mayor
Mike Lednovich	502-0650	City Commissioner

J. **Generator Repair**
See Emergency Assistance List Section 17.

K. **FPUC NE Substations**

Stepdown	277-1974
JL Terry	277-1973
AIP	277-1975

L. **Florida Power & Light**

Northern Area Dispatch	305-442-5739
Tom Gwaltney	954-439-0112 Cell

22. LOGISTICS

Motels:

Amelia Hotel	261-5735	1997 South Fletcher Ave,
Nassau Holiday Motel	225-2397	U.S. 17 South
Amelia South Condo.	261-7991	3350 So. Fletcher Ave.
Elizabeth Point Lodge	277-4851	98 So. Fletcher Ave.
Days Inn	277-2300	2707 Sadler Road
Hampton Inn	321-1111	2630 Sadler Road
Hampton Inn Downtown	491-4911	19 South 2nd Street
Comfort Inn	261-0193	2801 Atlantic Ave.
Country Inn	225-5855	462577 SR 200
Residence Inn	277-2440	2301 Sadler

Restaurants:

Baxter's	277-4503	4919 1st Coast Hwy
Beach Diner	310-3748	2006 South 8th Street
Florida House	491-3322	22 South 3rd Street
Chili's	225-8666	SR 200

Food Stores:

Harris Teeter's	491-1213
Publix	277-4911
Winn Dixie	277-2539
Winn Dixie (Yulee)	261-6100
Super Walmart	261-9410

Cellular Phones:
Verizon c call IT

Water Supply:
City of Fernandina Water
Nantze Springs Water Co. 800-239-7873
Wal-Mart 261-5306 (Island) or 261-9410 (Yulee)

Ice Supply:
Winn Dixie 277-2539
Publix 277-4911

Service Stations:
Flash Foods Store's 261-6563

Vehicle Repair Facilities:
Continental Auto Truck 904-797-2665 (24/7)
Altec Industries Inc (561) 686-8550 West Palm Beach

Rental Equipment
United Rental (904)404-7471

Flashlights (20 w/batteries): Quantity on hand
Portable AM/FM Radios w/batteries: Walmart (Additional) 261-5306 (Island) or 261-9410 (Yulee)

23. SERVICE PLAN TO SUPPLY POWER TO FPU OFFICES

During an emergency it is imperative that power be restored to the office/complexes located at 780 Amelia Island Parkway as soon as possible. Also of the utmost importance is to ensure the feeder to the building is maintained in optimum working order at all times.

The Operations Center at 780 Amelia Island Pkwy is served from an underground feeder #312 from Stepdown Substation.
If power is lost, a natural gas powered total building generator will provide backup service until the problem is resolved. If required, All down-stream switches should be opened so that power may be restored to the office as soon as possible.

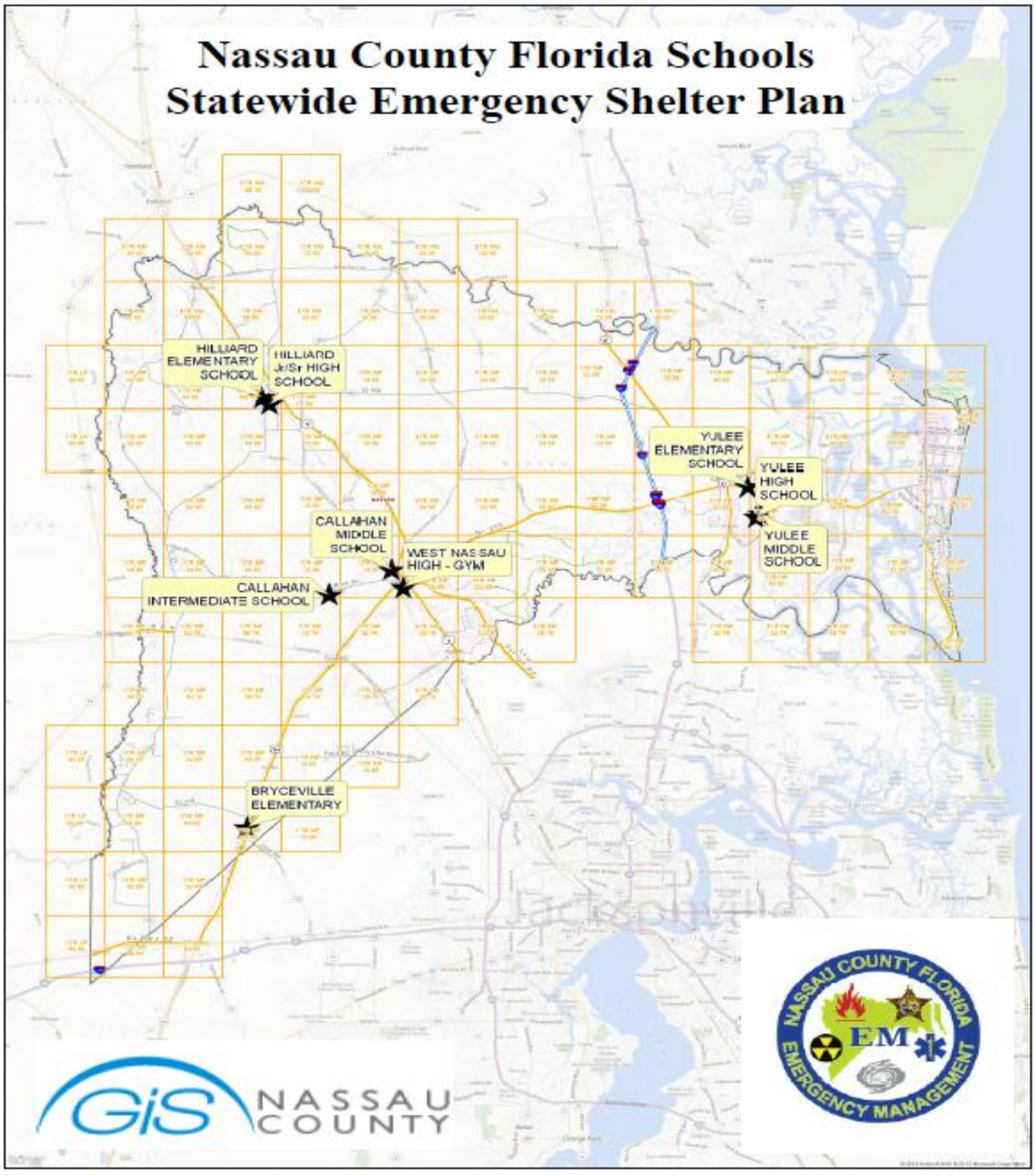
24. POST-STORM DATA COLLECTION AND FORENSIC ANALYSIS

FPUC will employ contractors to perform both the post-storm data collection and forensics analysis should a significant storm occur. The contractors will be provided with system mapping information and requested to collect post-storm damage information on areas as defined by the company. The areas will be selected in order to survey the areas in which the most damage occurs in order to gain the most information.

Damage will be identified so that the cause of the outage is identified as it relates to trees, wind, debris, conductor failure, pole failure, etc. which will be identified on the map. Depending upon the degree of damage, forensic analysis may be collected during this process. However, if the damage is extensive the forensics analysis will be performed as soon as possible after the post-storm data collection is completed.

Data collected during the collection process will be analyzed after completion of all storm related work has been completed. This analysis will summarize the type damage and failure modes of outages in order to determine methods to improve reliability in the future.

Nassau County Florida Schools
Statewide Emergency Shelter Plan



★ Nassau County Schools

0 7.5 Kilometers

0 Miles 10

Scale - 1:131,474

US National Grid
100,000-m Square ID
LQ | MQ
LP | MP

Grid Zone Designation
17R

Datum = NAD 1983, 1,000-m USNG

Mag. Declination
5° 41' 24"W
Changing by
4' W per yr
Date 2009

To Convert a Magnetic Azimuth to a Grid Azimuth SUBTRACT G-M Angle

GN

Diagram Not to Scale

G-M Angle
5° 41' 12"
Grid Convergency
1° 16' 48"

To Convert a Grid Azimuth to a Magnetic Azimuth ADD G-M Angle

FLORIDA PUBLIC UTILITIES COMPANY

NORTHWEST FLORIDA DIVISION

2020 EMERGENCY PROCEDURES Natural Disaster & Recovery

1. OBJECTIVE

The primary objective of the procedure is to provide guidelines under which the Northwest Florida Division of Florida Public Utilities Company will operate in emergency conditions. The following objectives will ensure orderly and efficient service restoration.

A. The safety of employees, contractors and the general public will have the highest priority.

B. Early damage assessment is required in order to develop manpower requirements.

C. Request additional manpower as soon as conditions and information indicate the need.

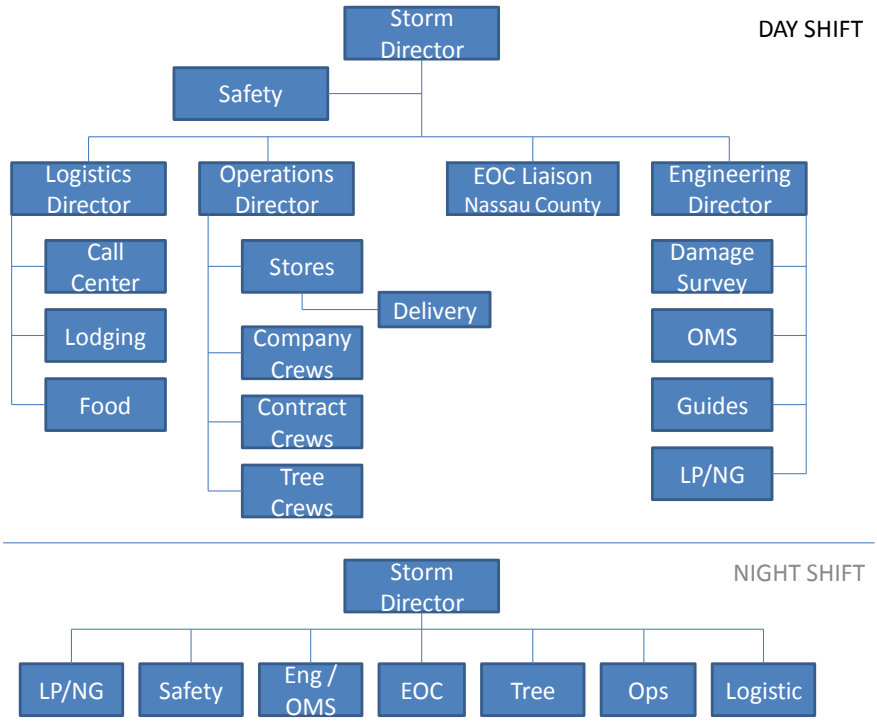
D. Provide for orderly restoration activities in order to provide efficient and rapid restoration.

E. Provide all logistical needs for employees and contractors.

F. Provide ongoing preparation of our employees, buildings, equipment and support function in advance of an emergency.

G. Provide support and additional resources for employees and their families should they need assistance to address injury or damage as a result of the emergency situation.

2. ORGANIZATIONAL CHART



3. EMERGENCY PERSONNEL POLICY

As a public utility we provide essential services for our customers and the general public. Therefore, the purpose of the Company's Emergency Personnel Policy is to encourage employees to make every reasonable effort to report to work. Each employee performs an essential role in the Company's operation and it's important that you report to duty as scheduled during an emergency. Restoring and maintaining services after a major storm is a difficult job and requires everyone's best efforts. Of necessity, employees may be required to assist other departments or perform functions outside of their normal daily work assignment. It will take every employee's cooperation before, during and after an emergency.

A. If you are on the job when the storm approaches, your supervisor will inform you of your storm assignment. Employees not directly involved in maintaining services may be released to go home before the storm threatens safe travel.

B. If you are off-duty, call your immediate supervisor as soon as possible after an emergency condition is announced. An Emergency Condition Warning is usually given within 24 hours of occurrence. Your supervisor will inform you as to where and when you'll be needed prior to, during, and after the storm. If your supervisor is not available call his/her immediate supervisor or the Northwest Florida Office. This requirement applies to all Northwest division employees when an emergency threatens any of the Company's service area.

C. During an emergency, the company will maintain a small workforce to monitor the emergency and address emergency conditions that may exists. This workforce will be located at a safe location and work closely with the Counties served EOCs. The company will determine what workforce is required and will consider utilizing those employees who volunteer for this type of work. Local Management will form the basis of this group. Other employees will be included based on the severity and timing of the emergency.

D. All employees are strongly encouraged to have a personal evacuation plan and know what to do during an emergency condition that impacts the service area. The plan should take into consideration the magnitude of the emergency and the significance of the actions that may be necessary. The plan should ensure that the employee and their family are safely out of harm's way while still allowing the employee to respond as required when the emergency conditions subside to a manageable level.

E. The company plans to move much of the transportation equipment to separate locations to ensure one event does not cause damage to the fleet. Employees are encouraged to volunteer to take certain vehicles with them prior to the emergency and use them to return to work as soon as possible after the emergency conditions subside to a manageable level. The company will determine how the transportation equipment is distributed among the volunteer employees.

F. After the emergency passes, all personnel not on duty during the storm will report as soon as possible to their supervisor or his/her designate by telephone. In the event the telephones are not working or you are unable to communicate with your supervisor or the company office, report in person to your regular work station as soon as possible during daylight hours.

G. EMPLOYEES ARE TO MAKE EVERY REASONABLE EFFORT TO REPORT TO WORK. IT'S UNDERSTOOD THAT THERE WILL BE INSTANCES WHERE EMPLOYEES JUST CAN'T GET TO WORK. IF YOU ARE UNABLE TO REPORT TO WORK MAKE EVERY EFFORT TO CONTACT YOUR SUPERVISOR TO REPORT YOUR ABSENCE.

H. Personal emergencies are a common result of a major hurricane, but unless approved by your Supervisor, will not be acceptable as an excuse for not reporting to work. Evacuation from a hurricane threatened area to a remote location from which you cannot promptly return to your home is also not acceptable as a reason for not reporting to work.

I. The Company will endeavor to provide assistance to employees and their immediate families should an employee need or request assistance.

J. Unless emergency conditions warrant, employees will not be required to work in excess of sixteen (16) consecutive hours.

The success of the emergency plan requires the cooperation and efforts of all of our employees. Employees may be required to return from their vacation or Company sponsored travel. Therefore, it will be the responsibility of each supervisor to determine the location of each of their employees on Company sponsored trips to facilitate their recall if conditions warrant their return when the emergency plan is implemented. Employees who are on vacation will notify, by telephone, their supervisors of their location and availability when an emergency threatens to strike our service area. Supervisors will consult with their department head to determine the feasibility and need to recall employees from vacation or Company sponsored trips. All employees are essential for the continued operation of the Company obligations and Company objectives.

The Company will develop information which will assist employees and their families before, during and after the storm. The General Manager, Northwest Florida will be responsible for obtaining the information and communicating this information to the employees. The Company will attempt to provide assistance to the employees and their families during emergency situations if needed.

4. GENERAL RESTORATION GUIDELINES

These general guidelines are issued to provide overall guidance as to emergency system restoration activities. These guidelines will be followed as much as practical in emergencies caused by hurricanes, tornadoes, ice storms and other natural disasters.

These guidelines are not intended to nor will they put in jeopardy the safety of any employee or their family. Dependent upon the intensity of the storm as determined by the company's management, employees will be required to report to work as instructed. If the intensity of the storm is such that weather conditions will be extremely severe, only a skeleton crew will be present at the work location. All others will report for duty as soon as conditions subside to a reasonable level. Those on vacation will be expected to report for duty.

The Northwest Florida office building was designed to withstand 100 mph sustained winds. If winds are expected to significantly exceed these ratings, alternative locations will be identified and restoration activities will be relocated to an alternate Facility.

These guidelines are not intended to prevent responding to emergency situations. Any life threatening emergency will be handled immediately, in such a manner as to not endanger the lives of others.

Each employee and contractor should maintain good customer relations during restoration activities. Customer service will continue to be a high priority and every reasonable effort should be made to satisfy our customers.

Press releases and public announcements should be made only by designated company management personnel.

Restoration activities will be handled in the following manner:

A. During the early stages of the emergency, restoration will be handled in the usual manner. All service will be restored as soon as possible.

B. As the storm intensifies and trouble reaches major proportions, the main restoration activities will be limited to keeping main feeder energized by clearing trouble without making repairs.

C. When the intensity of the storm is such that work can no longer be done safely, all work will cease and personnel will report to the office or other safe location. Aerial work will not be conducted when wind speed reach 40 miles per hour.

D. When the storm has subsided to a reasonable level and it is safe to begin restoration activities damage assessment and restoration of main feeders to critical customers will begin.

E. Restoration activities will continue in an effort to restore service in the following manner:

1) Substations
2) Main feeders to critical customers
3) Other main feeders
4) Undamaged primary
5) Damaged primary, secondary, service, street lights, security lights

5. EMERGENCY SAFETY PRECAUTIONS

All Rules in the Safe Practices Manual Shall be observed. However, in order to point out some particular precautions which should be observed during storms, the following instructions listed below should receive special emphasis:

ALL incoming crews must have a safety briefing as soon as practical upon arrival and prior to starting any work. This will be to introduce them to our system and inform them of our expectations. Pole bands at open points shall be used to identify the work zone. The responding Company's safety rules SHALL be observed as well as our rubber glove, ground to ground rule during the storm and restoration period.

Be advised that NET metering is present on our system and can be identified by a green stripe around meter glass.

A. SIZING UP WORK:

Before undertaking any job, a job briefing shall be thoroughly discussed and documented so all personnel shall understand what is to be done, how it is to be done, and the following:

1) Voltage and position of all wires, or cables, and the sources or source of energy.
2) That the work in hand can be done safely.
3) All grounding, cover up and switching procedures shall be observed.
4) That there is a sufficient amount of each kind of protective equipment on hand to thoroughly protect the work man.
5) They should consider the ground traffic conditions and arrange to protect and guard these against all hazards.

B. INSULATION:

In cases of trouble following storms, all wires, regardless of normal voltage, are to be considered as being at primary voltage and are not to be handled except with protective equipment because of the danger of crosses between primary and secondary circuits. (This is a ground to ground statement) This may be modified on a case by case basis by the joint agreement of the Operations Manager and Safety Coordinator.

C. DISTRIBUTION CIRCUITS ON OR NEAR TRANSMISSION POLES:

If it is necessary to work on the conductors of a distribution circuit carried on or near transmission line poles with the transmission circuit energized and normal, any work on the conductors of the distribution circuits must be done between sets of grounds or else the distribution circuit must be worked and treated as an energized circuit. To determine positively that the lines to be worked are de-energized, test or investigation must be made before grounds are applied.

If the transmission line is also out of service and apparently in trouble, it must be considered as a possible source from which the distribution circuit may be energized, and it must be definitely determined that the transmission circuit as well as the distribution circuit is de-energized and grounded and the source or sources of supply are open and proper clearance obtained before the distribution circuit may be worked as de-energized.

D. STREET LIGHTING WIRES:

Street lighting wires shall be considered energized at all times and the workman shall protect himself against them with proper protective equipment even when circuits are normally de-energized. Such a line is liable to become energized by accidental induction or lightning and sometimes street lighting wires become crossed with other energized wires.

E. FUSE CUT-OUT CLEARANCE:

When a distribution circuit is to be de-energized and cleared for working on conductors or other equipment by the opening of a fuse cut-out, either of the enclosed or open type, the fuse holder or tube is to be removed completely from the fuse assembly. The removed fuse holder or tube is to be placed at a safe and conspicuous location away from the fuse cut-out as an indication to other employees. The fuse cut-out shall continue in this open position until the work is completed. In addition, a red "hold" switch tag (with Lineman's name) should be attached to the pole in a conspicuous location and then removed when work is completed.

A pole band SHALL be used to identify who is working beyond the open point.

F. REQUIREMENTS FOR USE OF RUBBER PROTECTIVE APPARATUS:

In case of trouble following storms, all wires, regardless of normal voltage, are to be considered as being at primary voltage and are not to be handled except with protective equipment because of danger of crosses between primary and secondary circuits.

1) Energized Conductors - Rubber gloves must always be worn when working on energized lines or energized conductors or equipment up to 15,000 volts between conductors.

2) Working position - Rubber gloves must be put on before coming in reach of energized conductors when work is done on conductors or protective equipment is to be installed.

Because of the possibility of high voltage existing, rubber gloves must be worn until the conductor is grounded on primary circuits and on street lighting circuits.

Care of Rubber Protective Apparatus - At each job, before a workman puts on his rubber gloves, he should test each glove mechanically for cuts and weak spots by rolling it up tightly, beginning at the gauntlet. All of this type equipment, when not in use, must be stored in dry proper containers or compartment provided for this purpose.

G. SWITCHING ORDERS:

In all switching orders, the switches shall be referred to by their numbers and not by the name of the circuit which they control. The sequence in which the switch numbers are given, in the order, shall indicate the sequence of the switching operation. For example, an order given: "open switches 502-509 and close switches 511-502" shall be executed as follows: first, open switch 502; second, open switch 509; third, close switch 511; fourth, close switch 502.

NO DEVIATION FROM THIS RULE WILL BE PERMITTED.

To avoid misunderstandings and to prevent accidents, all orders concerning switching operations, or the handling of lines and equipment must be repeated to the person giving name, and identity of person giving order secured. Likewise, the operator giving an order must secure identity of person to whom it is given.

All switching orders must be written on a piece of paper by the person receiving same, and this written order must be carried by the person while doing the switching. ***In no case shall anyone attempt to***

execute a switching order from memory. *All switching orders and tags shall be turned into the Safety Coordinator as soon as practical.*

H. **HIGH WATER:**

During periods of high water involving lines or equipment, patrolmen shall not attempt to swim sections of the patrol which may be submerged. Necessary patrols over flooded areas must be done with boats and in such instances men engaged in these patrols shall wear suitable life belts or jackets.

I. **BROKEN CONDUCTORS**:

Before climbing pole, check for broken conductors which may be in contact with pole. Clear before climbing.

6. ANNUAL PREPARATIONS

Storm Director

A. Review emergency procedure prior to May 1 and update as necessary.

B. Develop employee assignments with all personnel prior to June 1.

C. Update status of emergency crew assistance (Contractors, NE Florida, SEE, etc.).

D. Ensure storm shutters, laundry facilities and cooking facilities are available.

E. Ensure that Safety, Logistics, Operations and Engineering have completed pre-storm preparations.

Electric Operations Manager

A. Check all communication equipment for proper operation. Check spare equipment and parts.

B. Check material quantities and emergency stock prior to June 1. Communicate material requests to Stores Manager to purchase the emergency stock approved for purchase prior to an emergency.

C. Have necessary emergency material delivered prior to June 1.

D. Review status of all transportation equipment and have repairs made.

E. Update status of remote storeroom site and trailer(s).

F. Update status of emergency fuel suppliers, on site fuel and mobile fuel suppliers.

G. Update status of vehicle repair facilities.

Safety

A. Review safety precautions with all line crew personnel prior to June 1.

B. Schedule and conduct half day emergency procedure training sessions prior to July 1. Written documentation is to be retained when training is complete.

C. Review assignments with each department by July

Senior Engineer

A. Check all communication equipment for proper operation. Check spare equipment and parts.

B. Update and have on hand the following:

1) Storm safety precautions
2) General operating instructions
3) Distribution maps
4) Single line switching maps
5) City and county maps

C. Conduct annual refresher training for personnel required to operate the Outage Management System (OMS).

Propane/ Natural Gas Operations Manager

A. Check all communication equipment for proper operation. Check spare equipment and parts.

B. Check material quantities and emergency stock prior to June 1. Begin necessary purchasing of emergency stock approved for purchase prior to an emergency.

C. Review safety precautions with all propane and natural gas personnel prior to June 1.

D. Have necessary emergency material delivered prior to June 1.

E. Review status of all transportation equipment and have repairs made.

F. Update status of emergency fuel suppliers, on site fuel and mobile fuel suppliers.

H. Update status of vehicle repair facilities.

Logistics/ Customer Care

A. Update the list of critical customers by town/county and provide updates to the Storm Director by June 1. Group the critical customers by town/county by classification:

1) Hospitals and clinics
2) Public utilities
3) Municipal and state emergency service
4) Communication and broadcasting services
5) Major food storage/processing facilities
6) Disaster shelter and motels
7) Correctional facilities
8) Airport

B. Update phone list for employees, law enforcement, emergency management, city/towns, utilities, contractors, tree trimming, personnel, news media, PSC, DCA, EDC, GEO, etc. and provide updates to the Storm Director by June 1.

C. Update phone list for employees, law enforcement, emergency management, city/towns, utilities, contractors, tree trimming, personnel, etc.

D. Review emergency telephone arrangements and make additional preliminary arrangements.

E. Update status of motel rooms necessary for emergency/contract crews.

F. Locate sources of food/water for crews and office personnel. Identify local and out of town caterers.

G. Update status of building security firm.

H. Ensure storm shutters, laundry facilities and cooking facilities are available

I. Locate sources for provision forthe Division office supplies.

Crew Leaders

A. Review status of all transportation equipment and have repairs made

B. Verify all vehicles kept filled with fuel

C. Assist with annual refresher training

Warehouse

A. Check material quantities and emergency stock prior to June 1. Begin necessary purchasing of emergency stock approved for purchase prior to an emergency.

B. Have necessary emergency material delivered prior to June 1.

7. PREPARATION JUST PROIR TO THE EMERGENCY

Storm Director

A. Monitor the emergency.

B. Begin making preparations for obtaining emergency assistance from other utilities and contractors.

C. Handle all media request.

D. Inform all employees as to assignments and emergency information.

E. Consult with FPUC Upper Management concerning activation of Division Emergency Procedures.

F. Consult with Senior Staff concerning assistance from other divisions (i.e. mechanics, storeroom, media, family assistance, IT/Communications. Personnel from other divisions will be identified and mobilized. They will move as close as practical to Northwest Florida and then proceed to the office as

soon after the emergency as travel can be accomplished safely. This location may change depending upon the situation.

G. Obtain special job number for all emergency related work.

Electric Operations Manager

A. Have all vehicles stocked with all necessary emergency materials and fuel.

B. Check emergency stock levels and fuel supplies.

C. Review plan to supply power to office and warehouse facility.

D. Check all communication equipment.

E. Review safety precautions with all personnel.

F. Review line department job assignments with personnel and pass out necessary forms, information.

G. Have all hazardous conditions corrected and construction jobs stabilized.

H. Verify emergency generator is fully fueled and operable with back-up fuel available.

I. Make arrangements for a suitable boat and trailer.

J. Ensure all vehicle repairs are made and final arrangements with vehicle repair facilities confirmed.

K. Check on emergency generators and secure additional generators if needed.

L. Check the status of personnel on vacation.

Propane/Natural Gas Operations Manager

A. Have all vehicles stocked with all necessary emergency materials and fuel.

B. Monitor time/material needs of contractors.

C. Check emergency stock levels and fuel supplies.

D. Review plan to supply power to bulk plant using backup power supplies

Logistics / Customer Care

A. Arrange for additional petty cash and cash advances (if necessary).

B. Work with HR department and personnel from other divisions to provide assistance to employees and their families. Assistance may include work to prevent further damage to homes, care for children; work with contractors or insurance companies and provide food/lodging/clothing, etc.

C. Make definite arrangements for contract crew lodging.

D. Make definite arrangements for food/water/drinks for all personnel.

E. Purchase food supply for office/warehouse prior to storm (if the severity of the storm warrants this).

F. Make arrangements for an abundant supply of ice.

G. Make definite arrangements for building security.

H. Make definite arrangements for Division Office supplies (See Annual Preparations, Logistics Manager, and Item E.)

Senior Engineer

A. Provide distribution maps, procedures, etc. as necessary.

B. Begin constant monitoring customer outages.

C. Monitor time/material needs of contractors.

Safety

A. Prepare for arrival of external crews.

B. Prepare daily safety briefing to be delivered to internal and external crews.

8. DURING THE EMERGENCY

Director Electric Operations

A. Be located at the Northwest Florida office and constantly monitor the situation and restoration process.

B. Keep media sources informed.

C. Begin activating additional services that will be needed during the restoration process.

Senior Engineer

A. Be located at the Northwest Florida office and constantly monitor the situation and restoration process.

B. Coordinate OMS activities.

C. Process customer outage system analysis to determine outage locations.

D. Activate control room.

Propane/Natural Gas Operations Manager

A. Be located at the Northeast Florida Operations Center (if possible) and constantly monitor the situation and restoration process.

B. Activate propane restoration process.

C. Coordinate with Engineering.

Logistics / Customer Care

A. Be located at the Northwest Florida office

B. Coordinate assistance to employees and their families.

C. Have food and drinks available to all employees.

D. Work with Operations Manager and begin making final logistical arrangements for outside crews.

Electric Operations Manager

A. Be located at the Northwest Florida office

B. Work with Senior Engineer to determine restoration requirements.

C. Coordinate and manage all restoration efforts

D. Keep all employees informed of when to report to work

Safety

A. Daily safety briefings for internal and external crews.

B. Incident investigations.

C. Field observations.

9. LOCAL STORM MODE

Director Electric Operations

A. Determine manpower requirement from information provided by others. Contact Upper Management concerning the situation, if possible, and advise whether or not the additional personnel should continue to Northwest Florida.

B. Begin making request for additional manpower contractors.

C. Keep the media informed until such time that the Manager of Communications is on site. At that time, the Manager of Communications will keep the Media informed.

Senior Engineer

A. Provide damage assessment to Operations Manager.

B. Provide updates to Operations Manager as needed concerning restoration progress.

C. Work with Operations Manager to determine restoration requirements.

D. Provide periodic outage updates to the PSC and Local County EOC's.

Propane/Natural Gas Operations Manager

A. Make assignments and dispatch crews as necessary in order to ensure orderly and efficient r estoration.

B. Provide damage assessment to Storm Director.

C. Provide updates to Storm Director as needed concerning restoration progress.

D. Monitor manpower and equipment requirements and update Storm Director as required.

E. Keep a list of all company and outside crews and their locations.

F. Determine and assign appropriate manpower and equipment for each situation.

G. Provide outside crews with all necessary information and safety information.

L. Monitor and provide assistance in repairing vehicles.

Logistics / Customer Care

A. Provide assistance and serve as liaison to employees and their families.

B. Make final and definite arrangements for lodging, fuel, meals, snacks, coffee, drinks, etc. for all employees and contract employees.

C. Check-in all outside crews and log the personnel and equipment included. Provide assistance with lodging, meals, etc. and keep up with crew locations.

D. Provide assistance as needed.

E. Ensure building security is operating at office.

F. Ensure Division office supplies are in place if needed.

G Ensure caterers are available as needed.

Electric Operations Manager

A. Determine and assign appropriate manpower and equipment for each outage situation.

B. Work with Senior Engineer to determine restoration requirements.

C. Provide outside crews with all necessary information and SAFETY INFORMATION.

D. Ensure all documents are completed prior to material leaving the storeroom and storeroom yard.

E. Monitor and provide assistance in repairing vehicles.

F. Initiate damage assessment teams.

G. Prioritize and schedule the restoration process.

H. Make assignments and dispatch crews as necessary in order to ensure orderly and efficient restoration.

10. OPERATING PROCEDURE

These instructions are intended to give the employee working on the line information as to the general procedure to be followed under hurricane conditions.

The Operations Manager and Safety Coordinator will review these instructions with employees each year so that they may become familiar with the details. This should be done before July 1, each year.

A. Before the Storm

All operating personnel should be instructed as to:

1) Safety and operating procedures to be followed during the storm.
2) Where and when materials and supplies will be available.
3) Their assigned areas and supervisor.
4) Any provisions made for feeding and lodging.
5) Work days will normally be two shifts. Each shift will consist of at least 12 hours but could be 16 hours.
6) The necessity of dividing line crews for clearing and minor repairs.
7) Telephone communication procedures with appropriate list of numbers.

B. During the Storm

1) First Stage - Repairing All Cases Reported

In order to reduce the over-all outage time to customers who may be interrupted at the beginning of the storm, trouble will be handled in a normal manner during the early stages.

2) Second Stage - Clearing Trouble From Lines

When the volume of trouble increases to the point where large areas are interrupted, the Operations Manager will instruct crews to clear trouble from the lines without making repairs in order to maintain service to essential customers and feeders.

a. Secondary or service wires may be cleared by cutting the conductor away from energized lines or by opening the transformer cut-out.

b. Damaged primary conductors may be cleared by cutting and rolling back a primary jumper or conductor at the cross arm or by sectionalizing switching if applicable.

3) Third Stage - De-energizing Main Lines

When the winds reach the point where it is no longer safe for crews to continue working all restoration activities will cease. The Operations Manager may instruct crews to de-energize main line feeders at substations if necessary to clear extremely hazardous conditions.

C. After the Storm

1) Sequence of Restoration

The sequence of restoration after the winds subside to a safe working level will be as follows:

a. Substations
b. Essential customers
c. Feeders
d. Undamaged primaries (fuse replacement only)
e. Damaged primaries
f. Secondary's
g. Services
h. Street lights

2) Line Patrols

All distribution lines which have "locked out" due to storm to prevent further damage must not be re-energized until patrolled and cleared of primary faults.

3) Discuss with Safety Coordinator on safety concerns/near miss during restorations.

11. TELEPHONE OPERATORS GUIDE

During any major interruption our customers will naturally be concerned about falling wires, burning wires, defrosting refrigeration and even their daily routines in which electricity plays a part. The most important test we have is maintaining good relations during these emergencies. Those employees answering telephones must keep this in mind - be calm, pleasant and sympathetic with the customer and at the same time getting the necessary information needed to clear dangerous conditions and restore service as soon as possible, giving as much information to the customer that is available.

Outlined below is a suggested procedure to be used during three different phases of an interruption (The Assistant Operations Manager will determine when Phase 1 begins and when movement to Phase 2 and 3 is indicated):

Phase 1 - will be in effect until the time of the first trouble call until it is evident that there is widespread damage in the area.

Phase 2 - will be in effect following Phase 1 until damage evaluations have been made and estimate of the time required to make major repairs.

Phase 3 - will begin in an area where an estimate of the time required to make major repairs is available and will continue until all trouble is clear.

Your supervisor will advise you when conditions change from one phase to another in accordance with the routines outlined below:

Suggested Answering Routine to be used by All Operators

Phase 1 - Early Trouble Prior to Extensive Damage

1. "Florida Public Utilities, May we help you please."

a. If no lights, no power, lights dim, ask: "What is your name, address and telephone number please?"
b. If wire down, pole broken, tree on a line, ask:
   1) "Is the wire burning?"
   2) "Are your lights working?"
   3) "We hope to be able to make repairs shortly. Thank you very much for calling."

Phase 2 - Extensive Damage Evident But Estimate of Repair Time Not Available

1. "Florida Public Utilities, May we help you please."

   a. If no lights, no power, lights dim, ask: "What is your name, address and telephone number please?"
   b. If wire down, pole broken, tree on a line, ask:
      1) "Is the wire burning?"
      2) "Are your lights working?"
      3) "Our electric system has suffered considerable damage in your area and we haven't been able to make an estimate of the time required for repairs. Our crews are working now and if your service has not been restored by (morning/afternoon) please call again. Thank you."

Phase 3 - Damage Evaluated and Repair Time Estimated

1. "Florida Public Utilities, May we help you please."

   a. If no lights, no power, lights dim, ask: "What is your name, address and telephone number please?"

   b. If wire down, pole broken, tree on a line, ask:

      1) "Is the wire burning?"
      2) "Are your lights working?"
      3) "We have crews working on the lines which serve your area and repairs should be made by (time). If your electricity us not on by that time, please call again. Thank you."

Remember a properly handled telephone conversation with a customer can create an immeasurable amount of good will. When conversing with customers, keep the following points in mind:

1. Be courteous to each customer.
2. Give him as much information as is available of the restoration work.
3. Record each call and report the information vital to restoring the customer's service.
4. Handle each call as briefly as possible.
5. Thank the customer for calling.
6. Do not give the news media information. If a request for new information is received, record the name of the individual, news organization, telephone number and specific request. Inform the caller that a company representative will return the call. The information should be sent immediately to the Assistant Operations Manager, Northwest Florida.
7. During an emergency condition, some customers will contact the company for reasons that do not pertain to the emergency. These calls should be recorded and the exact customer needs should be stated in the remarks column. These calls may include disconnections, reconnections, etc., or may be a personal call to an employee. After the contact has been recorded, the completed form should be given directly to the supervisor.

Entering Outages

Each customer call will be recorded in the Outage Management System. The information entered should be entered accurately to ensure the system operates properly. The information entered will be stored as a permanent record and will be used to analyze the nature of the outages.

Should emergency situations come to your attention, please notify a supervisor. The method of this documentation will be determined.

12. MEDIA/PUBLIC INFORMATION GUIDE

In order to monitor all information given to media and public sources, only Upper Management, Northeast Florida, Manager of Communications or their designee will make press releases. If other employees are asked by media or public agencies for information, politely ask them to call (888) 843-5121 for the latest information.

13. WAREHOUSE PROCEDURE

During an emergency, material is vital to promptly and efficiently restore service to all customers. It is therefore important to monitor all stock levels to ensure adequate supplies are on-hand and if stock levels get low, be able to quickly order additional materials.

All material taken from the storeroom or remote storeroom will have the appropriate documentation completed before being removed from the stores area. The stores personnel will ensure this is followed.

Only authorized personnel should be in the stores area. Stores personnel will monitor those in the stores area to ensure compliance.

14. PERSONNEL BACKUP CONTINGENCIES

Should the following personnel not be available during the emergencies, personnel in the positions listed may fill in when needed.

Director, Electric Operations
Manager, Electric Operations

Senior Engineer
Manager, Electric Operations

Logistics Manager
Energy Conservation Representative

15. EMPLOYEE ASSIGNMENTS

TENTATIVE SCHEDULE

DAY SHIFT 6:00 AM Reporting Time		**NIGHT SHIFT** 6:00 PM Reporting Time	
OFFICE		**OFFICE**	
Rhondon Gray	Operations Manager, NW	Donna Fowler	Stores Manager
Shane Magnus	Supv. Engineer	Morgan Firestone	Telephone
Janine Roye	Logistics Lead		
Mason Brock	Logistics		
		Donnie Tew	Engineering /Cust. Outages
Sally Jones	Customer Care Supervisor		
Amber Cumbie	Telephone	**SERVICE CREWS**	
Laura McCoy	Telephone	Darryl Grooms	Crew Leader
Angela Thomas	Telephone	Jae Elliott	Apprentice Lineman
SERVICE / LINE CREWS			
Bradley Flowers	Senior Lineman	**PATROLMAN/GUIDE**	
James Ussery	Crew Leader	Janet Register	Patrol/Guide
Alvin Foran	Crew Leader		
Kevin Harris	Senior Lineman		
Stephen Amos	Lineman		
Eric Norris	Lineman		
Chris Allen	Lineman		
Bobby See	IMC Technician I		
John Griffin	IMC Technician I		
STORES			
Donna Fowler	Stores Supervisor		
Doug Jones	Warehouseman		
PATROL/GUIDE/SAFETY			
TBD	SAFETY		
Virginia Nail	Patrol/Guide		
Kate Jones	Patrol/Guide		

16. EMERGENCY ASSISTANCE LIST

Company	Contact	Telephone	Available Resources
Gulf Power Company	Andy McQuagge	(850) 872-3220	Crews
West Florida Electric Coop	Bill Rimes	(850) 263-6518	Crews
FPU-Fernandina Beach	Chris Hebert	(904) 277-3444	Crews
Davey Tree	Russell Brooks	(352) 279-8622	Tree Crews
Davey Tree	Russell Brooks	(228) 396-5810	Tree Crews
City of Tallahassee	Robert McGarrah	(850) 891-5534	Crews
Talquin Electric Coop		(850) 627-7651	Crews
Gulf Coast Electric Coop		(850) 877-6166	Crews
Public Service Commission	Rick Moses	(850) 431-6582 (850) 408-4757 cell	Primary Contact
Public Service Commission	Tom Ballinger	(850) 413-6680	Backup Contact
Florida Electric Power Coordination Group	R J Midulla	(813) 289-5644	Crews
Mastec		(850) 519-0664	Crews
Utilicon		(478) 348-3233	Crews
		(850) 890-0131 cell	
		(850) 638-7129 home	
Harper Electric	Mark Harper	(334) 222-7022	
		(334) 222-7854	
		(334) 343-1703 cell	

Vehicle Repairs Assistance			
Company	**Contact**	**Telephone**	**Available Resources**
Altec Industries Inc		(205) 458-3850	Mechanical Repairs
Altec Industries Inc		(205) 458-3857	Mechanical Repairs
Altec Industries Inc		(205) 458-3889	Mechanical Repairs
Altec Industries Inc		(205) 458-3849	Mechanical Repairs
Altec Industries Inc		(205) 458-3848	Mechanical Repairs
Auto Clinic	Office	(904) 482-6632	Mechanical Repairs
Auto Clinic	Mike Krieser	(850) 569-8475	Mechanical Repairs
Auto Clinic		258-6274	Mechanical Repairs
Banning Garage	Dale Brannon	352-4613 shop	Wrecker
		(850)638-1899 cell	Wrecker

17. EMERGENCY STOCK REQUIREMENTS

Bin #	Description	Quantity
EWA04	Wire, #4 ACSR Bare	25,000
EWB010	Wire, #1/0 ACSR Bare	6,000
EWT04	Wire, #4 AL Triplex	2,500
EWT010	Wire, #1/0 AL Triplex	10,000
EWT02	Wire, #2 AL Triplex	5,000

EWQ010	Wire, #1/0 AL Quad	1,000
EWQ040	Wire, #4/0 AL Quad	1,000
EWG38	Wire, 3/8 Guy	3,000
EARL76	Arrester, Lightning	100
ECLDS	Clevis Dead End	100
ECOF200	Cut-out, Fused, 100A	50
ECOL150	Cut-out, Load Break, 200 A	24
EESU600	600A, Single Phase Hookstick	6
EGA477	Line Guard, 477	100
EGA336	Line Guard, 336	50
EGA40	Line Guard, 4/0	50
EFGG38	Guy Grip, 3/8 Galv	200
EIP7500	Insulator, Pin Type, 7500 V	100
EIRR	Insulator -Rack Type (Spool)	100
EIDP654	Insulator Deadend Epox.	100
EIFR1200	Insulator, Fiberglass Rod 12”	25
EIFR6000	Insulator, Fiberglass Rod 5’	50
EPP24	Pole Top Pin	100
EBRF15	Pin, Fiberglass Horizontal	100
EPW304	Pole, 30’/4	50
EPW354	Pole, 35’/4	10
EPW401	Pole, 40’/1	30
EPW451	Pole, 45’/1	50
EPW501	Pole, 50’/1	10
EPW55H1	Pole, 55’/1	5
EPW602	Pole, 60’/1	5
ETS1000	Ties, #4 Side	100
ETS1000	Ties, #477 Side	50
ETW04	Ties, #4 Wrap lock	100
ETW336	Ties, #477 Wrap lock	100
ECLDE	Clamp, Dead-end #6-#2 Service	200
ECLDE2	Clamp, Dead-end #1/0 Service	100
ECOHA	Connector, H Type, WR-159 #1	1,000
ECOHA	Connector, H Type, WR-189 #2	1,000
ECOHA	Connector, H Type, WR-289 #3	200
ECOA	Connector, H Type, WR-279 #4	250
ECOA	Connector, H Type, WR-379 #5	250
ECOA	Connector, H Type, WR-419 #7	250
ECOA	Connector, H Type, WR-399 #6	250
ECOHA	Connector, H Type, WR-885 #525	100
ECOHA	Connector, H Type, WR-835	100

ECOVA6	Connector, Vise Action, #6 Cu	100
ECOVA4	Connector, Vise Action, #4 Cu	200
ECOVA2	Connector, Vise Action, #2 Cu	150
ESLA4AC	Sleeves, Auto Splice, #4 AL	500
ESLA10A	Sleeves, Auto Splice, #1/0 AL	50
ESLA30A	Sleeves, Auto Splice, #3/0 AL	25
ESLA40A	Sleeves, Auto Splice, #4/0 AL	50
ESLA336A	Sleeves, Auto Splice, 336 AL	100
ESLA477A	Sleeves, Auto Splice, 477 AL	150
ESLTRN	Sleeves, Triplex Neutral, #4 AL	100
ESLTRN	Sleeves, Triplex Neutral, #2 AL	100
ESLTRN	Sleeves, Triplex Neutral, #6 AL	100
ESLTRN	Sleeves, Triplex Neutral, 1/0 AL	100
ESPGUY	Splice, Guy	50
ESTHL24	Stirrup, #4	100
ECLHLS	Stirrup, Hot Line 2 Bolt	30
EFULI002	Fuse Link, 2 ½ Amp	150
EFULI004	Fuse Link, 4 Amp	100
EFULI007	Fuse Link, 7 Amp	100
EFULI010	Fuse Link, 10 Amp	150
EFULI015	Fuse Link, 15 Amp	100
EFULI020	Fuse Link, 20 Amp	150
EFULI025	Fuse Link, 25 Amp	100
EFULI030	Fuse Link, 30 Amp	25
EFULI040	Fuse Link, 40 Amp	25
EFULI050	Fuse Link, 50 Amp	25
EFULI065	Fuse Link, 65 Amp	25
EFULI080	Fuse Link, 80 Amp	25
EFULI100	Fuse Link, 100 Amp	25
	Transformer, 15 KVA 120/240	10
	Transformer, 15 KVA 277/480	3
	Transformer, 25 KVA 120/240	20
	Transformer, 25 KVA 277/480	3
	Transformer, 37.5 KVA 120/240	10
	Transformer, 37.5 KVA 277/480	3
	Transformer, 50 KVA 120/240	10
	Transformer, 50 KVA 277/480	3

18. TRANSPORTATION AND EQUIPMENT

TRUCK #	ITEM DESCRIPTION	X	Y	Z	GPS INSTALLED	VEHICLE OPERABLE	DATE	BY	CONTACT/ COMMENTS
810	Fork Lift								
859	Pole Trailer								
860	Material Trailer								
861	Combination Pole Trailer								
862	Wire Retrieving Trailer								
863	Wire Pulling Trailer								
195	Chevy 2005 (Dump)								
969	Freightliner/Derrick								
979	Freightliner/Derrick								
968	Material Handler/Freightliner								
980	Bucket Truck								
982	Pick-Up Truck (Griffin)								
991	Rav4(Jones)								
747	International (Bucket)								
990	Rav4 (Nail)								
957	Toyota Pre-Runner (Tew)								
954	Altec Material Handler								
974	Altec Material Handler								
956	Chevy Pickup (Flag)								
959	Toyota Tundra (Spare)								
983	Altec Service Material Handler								
962	Ford Transit (See)								
965	Altec Material Handler								
989	Toy. Pickup (Register)								
865	Signboard								
866	Trailer								
984	Toyota Rav4 (Brock)								
992	Chevy Pickup								
2185	Ford 4X4 (Gray)								

19. CRITICAL CUSTOMER LIST

A. Hospitals, Clinics, Nursing Homes

Name	Address	Telephone	Contact Person
Jackson Hospital	800 Hospital Dr.	526-2200	James Platt
Marianna Convalescent Ctr.	805 5th Ave.	482-8091	Melinda Gray
The Nursing Pavilion	710 3rd Ave.	526-3191	Richard Pitman

B. Public Utilities

Name	Address	Telephone	Contact Person
Marianna Waste Water	2832 Davey St.	482-4353	Jim Dean
Sunland Waster Water T.P.	3693 Industrial Park	"	"
Park St. Pump Station	2988 Park St.	"	"
Davis Field Pump Station	4457 South St.	"	"
Sheffield Pump Station	3325 Old US Rd.	"	"
Marianna Well #5	Clinton & Noland St.	"	"
Marianna Well #6	Ninth Av. & Third St.	"	"
Marianna Well #1	Hwy 90 W/ Pool	"	"
Marianna Public Work	4168 South St.	"	"
Marianna Gas Department		"	"

C. Major Disaster Shelters/Motels

Name	Address	Telephone	Contact Person
Best Western 2086 Hwy 71	526-5666		
Comfort Inn	2175 Hwy 71	526-5600	
Exective Inn	4113 Lafayette	526-3710	
Best-Value Inn 4168 Lafayette	482-4973		
Chipola Jr. College	3094 College Dr.	526-2761	
Cottondale High School	2680 Levy St	482-9821	Larry Moore
Malone High School	5361 North St	482-9950	Larry Moore
Marianna High School	Caverns RD.	482-9605	Larry Moore
Marianna Middle School	4144 South St.	482-9609	Larry Moore
Riverside Elementary	2958 Cherokee St.	482-9611	Larry Moore
Golson Elementary	4258 Second Av.	482-9607	Larry Moore
Microtel	4959 Whitetail Dr.	526-5005	Harkins
Hampton Inn	2185 Hwy 71	526-1006	D Thompson
Budget Inn	4135 Lafayette St	482-2700	R Shah
Fairfield Inn	4966 Whitetail Dr.	482-2578	
Ramada Limited	4655 E. Hwy 90	526-3251	
Comfort Inn	2214 Hwy 71	482-7112	
Marianna Inn	2222 Hwy 71	526-2900	

D. Municipal and State Emergency Services

Name	Address	Telephone	Contact Person
Florida Highway Patrol	3613 Hwy 90	482-9512	Lt. Moore
Jackson Co. Sheriff Dept.	4012 Lafayette St	482-9624	L. Roberts
Cottondale Police Dept.	2659 Front St.	352-4361	Watford
Marianna Police Dept.	2890 Green St.	526-3125	H. Bagett
Jackson Co. Fire & Rescue	Industrial Park Dr.	482-9669	R Brown
Alford Fire Dept.	1768 Georgia St	638-8657	B Yongue
Cottondale Fire Dept.	2669 Front St.	911	
Malone Fire Dept.	5187 Ninth Ave.	911	M Padget
Marianna Fire Dept.	4425 Clinton St.	482-2414	N. Lovett
Emergency Management	.	482-9683	Andreason
Emergency Management	.	573-1058	Andreason

E. Communication and Broadcasting Services

Name	Address	Telephone	Contact Person
WTOT/WJAQ Radio	4376 Lafayette St	482-3046	Betty Demmon
Jackson County Floridan	4403 Constitution Ln	526-3614	V. Roberts
WMBB	Panama City	850-769-2313	M. McAfee

F. Major Food Storage/Processing Facilities

Name	Address	Telephone	Contact Person
Malone IGA	5417 10th St.	569-2635	
Grocery Outlet	Lafayette St.	526-5528	D. Pendergrass
Winn Dixie	4478 Lafayette St	482-5303	Russ
Walmart Superstore	Highway 71	526-5744	M. Gilmore

G. Correction Facilities

Name	Address	Telephone	Contact Person
Marianna Work Camp		482-9561	
Federal Correctional (FCI)	3625 FCI Rd	526-2313	L. Gross

I. Airports

Name	Address	Telephone	Contact Person
Chipola Aviation Inc.	3633 Industrial Park Dr	482-8480	
Panhandle Aviation	Greenwood	594-3224	
Marianna Airport/ Ind. Park	Industrial Park Dr.	482-2281	

***EMERGENCY FUEL**

24HRS. DONALD CUTCHINS **STORM/FUEL SHORTAGE**
(H) 352-2906 ©573-1505 **(w) 482-7003 © 643-8925**
Suncoast Resources **Susan Tyler.....** **(713) 429-6732**

20. EMERGENCY TELEPHONE LISTING

A.	Telephone Repair	
	Century Link (Wilton Crawford)	526-3481 or (611)
B.	Radio Repair	
	Verizon (Jerry Fox)	(850) 867-9633
C.	Gulf Power Company	
	Pensacola Dispatcher	444-6517
	Panama City Dispatcher	872-3261
	Storm Coordinator	785-8305
	Andy McQuagge	872-3220
D.	Emergency Management	
	Jackson County (Rodney Andreason)	482-9633
	" " "	536-4500
	Calhoun County (Don O'Bryan)	674-8075/5161
	Liberty County (Jerry Butler)	643-3477
	State Office (Rick Moses)	(850) 408-4757
E.	Law Enforcement - 911	
	Jackson County	482-9624 / 482-9648
	Calhoun County	674-5049/4275
	Liberty County	643-2235
	Marianna	526-3125
	Greenwood	482-9648
	Malone	482-9648
	Cottondale	352-4361
	Alford	482-9648
	Altha	762-3900
	Bristol	643-2235
	Blountstown	674-5987
	Bascom	482-9648
	Florida Highway Patrol	482-9512
F.	Ambulance - 911	
	Jackson County	482-9669 / 482-9668
	Calhoun County	674-5411
	Liberty County	643-2235
G.	News Media	
	WTOT/WJAQ (Don Moore)	482-3046
	Jackson County Floridan	526-3614
	WTVY-Channel 4 TV/Dothan	(334)792-3195
	WJHG-Channel 7 TV/Panama City	234-2125 / 526-5727
	WMBB-Channel 13 TV/Panama City	763-6000 / 482-8007

H. City/County Officials

Jackson County	482-9633
Calhoun County	674-4545
Liberty County	643-5404
Alford	579-4684
Bascom	569-2234
Cottondale	352-4361
Greenwood	594-1216
Malone	569-2308
Marianna	482-4353
Altha	762-3280
Bristol	643-2261
Blountstown	674-5488

21. LOGISTICS

Motels:

Best Western	526-5666
Comfort Inn	526-5600
Microtel	526-5005
Executive Inn	526-3710
Hampton Inn	526-1006
Holiday Inn Express	526-2900
Ramada Limited	526-3251
Best Value Inn	482-4973

Air Mattress/Cots:

Loftin's Rental Center	526-4680
North Florida Rentals	526-7368

Laundry & Linen Services/Supplies:

UniMac Express Laundry	482-6504
Nifty Cleaners	482-2825

First Aid Supplies:

Waco Drugs	482-5781	Kelson Drugs	526-2839
Paramore's	482-3924	Watson's	482-4035
CVS			

Restaurants:

Captain D's	482-6230
Beef O Bradys	482-0002
Fortune Cookie	526-3735
Jim's Buffet & Grill	526-2366
Hungry Howies	526-7878
Dairy Queen	482-1055
Sonny's Barbecue	526-7274
Ruby Tuesday	526-7100
Waffle Iron	526-5055
Zaxby's	633-4545
The Oaks	526-1114
Hungry Howies	526-7878
Ruby Tuesday	526-7100
Waffle Iron	526-5055
Zaxby's	633-4545

Firehouse Subs	482-5883
San Marcos	482-0062
Pizza Hut	482-5900
Gazebo Rest.	526-1276

Catering:

Sweet Stuff Bakery	526-2250

Food Stores:

Grocery Outlet	526-5528
Walmart Superstore	526-5744
Malone IGA	569-2635
Winn Dixie	482-5303

Cellular Phones:

Verizon	526-7701

Water Supply:
FPU (Co. generator to supply water)
Nantze Springs Water Co. 800-239-7873

Ice Supply:
Winn Dixie 482-5303

Service Stations:

Big Little Store	526-5743
Cottondale Texaco	352-2804
Marianna Texaco	482-6105
Hartsfield Mini-Mart	482-4545
K & M Expressway	526-5575
McCoy's Chevron	526-2921
Marianna Chevron	526-2183
Marianna Truck Stop	526-3303
Mike's Texaco, Malone	569-2401
Nugget Oil	482-8585
Sangaree BP	482-5241
Murphy USA	482-6149
Stoney's	482-2028
Tom Thumb	482-4842

Vehicle Repair Facilities:

Baker Equipment	800-765-4908
Altec Industries Inc	205-323-8751
Thompson Tractor Co	526-2241
Beall Tire Co	482-323
Auto Clinic	482-6632

Flashlights (20 w/batteries):
Quantity on hand
Mayer Electric (Additional) 800-216-6712

Portable AM/FM Radios w/batteries:
WalMart 526-5744

Necessary Supplies for Northwest Florida Office:

Food Items:

Item	Item
Bread	Peanut Butter
Gallon Size Water	Bottle Size Water
Jelly (Grape & Strawberry)	Milk
Orange Juice	Soft drinks (Miscellaneous)
Soft drinks (miscellaneous)	Margarine
Cookies (miscellaneous)	Crackers
American Cheese	Cheddar Cheese
Lunch Meat (miscellaneous)	Potato Chips (miscellaneous)
Pretzels	Tomatoes
Onions	Mayonnaise
Mustard	Ketchup
Pastries (miscellaneous)	Bagels

Supplies:

Item	Item
Paper Plates	Paper Bowls
Plastic Utensils	Aluminum Foil
Garbage Bags	Foil Pans/Trays
Paper Towels	Dish Towels and Rags
Serving Utensils	Dish Soap

22. SERVICE PLAN TO SUPPLY FPU OFFICE POWER

During an emergency it is imperative that power be restored to the office/complex located at 2825 Penn Av. as soon as possible. Also of the utmost importance is to ensure the feeder to the building is maintained in optimum working order at all times. This includes tree trimming, replacing deteriorated poles, replacing defective equipment, etc.

After an emergency in which power is lost to the office/warehouse, someone will immediately go to the Marianna Substation in order to determine the status of the breaker #9854 (South St Feeder). That feeder will also be patrolled to determine what will be needed to restore service to the office/warehouse. All available personnel will be utilized to restore power.

If required, downstream switches should be opened so that power may be restored to the warehouse as soon as possible.

23. DAMAGE ASSESSMENT PLAN

After a major storm or emergency occurs it will be necessary to access the damage to the system as quickly and accurately as possible. The following shows the assignments for a quick visual system inspection which is to be performed as soon after the storm/emergency as possible.

Director Electric Operations
Check Hospital feeder from the hospital to Marianna Substation. Check Marianna Substation.

Safety Coordinator
Check Chipola Substation. Check along Old US Rd to Hwy 90.

Operations Manager
Check along Kelson Av to Penn Av then down Penn Av to the office. Check Caverns Rd Substation. Check along Hwy 71 South to Hwy 90 then south on West Caledonia to South St then west on South St to Penn Av then north on Penn Av. to the warehouse.

Senior Engineer
Check along Hwy 90 from Marianna Substation to Penn Ave.

24. DAMAGE ASSESSMENT FORM

The Damage Assessment Form to be completed and returned as soon as possible after the storm/emergency. To ensure proper planning it is essential that this form be completed neatly, accurately and completely.

FPUC will employ contractors to perform both the post-storm data collection and forensics analysis should a significant storm occur. The contractors will be provided with system mapping information and requested to collect post-storm damage information on areas as defined by the company. The areas will be selected in order to survey the areas in which the most damage occurs in order to gain the most information.

Damage will be identified so that the cause of the outage is identified as it relates to trees, wind, debris, conductor failure, pole failure, etc. which will be identified on the map. Depending upon the degree of damage, forensic analysis may be collected during this process. However, if the damage is extensive the forensics analysis will be performed as soon as possible after the post-storm data collection is completed.

Data collected during the collection process will be analyzed after completion of all storm related work has been completed. This analysis will summarize the type damage and failure modes of outages in order to determine methods to improve reliability in the future.