



March 1, 2013

**VIA HAND DELIVERY**

Mr. Tom Ballinger, Director  
Division of Engineering  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

*Re: Annual Service Reliability Report for 2012; Undocketed*

Dear Mr. Ballinger:

Pursuant to Rule 25-6.0455, F.A.C., enclosed is an original and four (4) copies of the subject report on behalf of Progress Energy Florida, Inc. Also attached is a CD of the report in electronic format. Please feel free to call me at (727) 820-4692 should you have any questions.

Thank you for your assistance with this matter.

Sincerely,

Dianne M. Triplett

DMT/lmr  
Enclosure



**Progress Energy**

# **2012 Annual Reliability Report**

March 1, 2013

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## 2012 Year End Customers Served by Region

Zone/Regions	3 Char OP	Op Center	Cust Served	Date
NORTH CENTRAL	APK	APOPKA	94,012	12/31/2012
	DEL	DELAND	75,786	12/31/2012
	JAM	JAMESTOWN	126,024	12/31/2012
	LNG	LONGWOOD	82,376	12/31/2012
			<b>378,198</b>	
NORTH COASTAL	INV	INVERNESS	69,953	12/31/2012
	MON	MONTICELLO	46,617	12/31/2012
	OCA	OCALA	76,479	12/31/2012
			<b>193,049</b>	
SOUTH CENTRAL	BNV	BUENA VISTA	98,992	12/31/2012
	CLR	CLERMONT	28,817	12/31/2012
	HIL	HIGHLANDS	55,712	12/31/2012
	LKW	LAKE WALES	91,674	12/31/2012
	SEO	SE ORLANDO	82,149	12/31/2012
	WGN	WINTER GARDEN	71,547	12/31/2012
			<b>428,891</b>	
SOUTH COASTAL	CLW	CLEARWATER	150,825	12/31/2012
	SEV	SEVEN SPRINGS	167,312	12/31/2012
	STP	ST. PETERSBURG	161,696	12/31/2012
	WAL	WALSINGHAM	146,612	12/31/2012
	ZEP	ZEPHYRHILLS	24,506	12/31/2012
			<b>650,951</b>	
SYSTEM			<b>1,651,089</b>	12/31/2012



## I. OVERALL RELIABILITY PERFORMANCE – 2012 (Rule 25-6.0455, F.A.C.)

### a. Discuss overall performance absent adjustments

*Please see attached Form 102. In 2012, Progress Energy Florida experienced (1) tornado event and (4) named storms. The four tropical storms, Beryl (5/27-5/29), Debby (6/24-6/27), Isaac (8/26-8/28) and Sandy (10/26-10/29) and the tornado that affected our North Coastal and North Central Zones on 12/10 totaled 52.4 minutes. Please see table below for details.*

Year	2008	2009	2010	2011	2012
<b>Weather excluded SAIDI</b>	72.9	6.5	2.5	65.3	52.4

*In 2012, PEF's SAIDI absent adjustments was 142.9, less than 2011's performance and approximately equal to the average over the last four years. In 2012, 69.5 total minutes were excluded, 52.4 of those were severe weather related, as noted in the table above. The severe weather excluded minutes are 75% of the total minutes excluded. This percentage is similar to other years that experienced exclusions related to tropical storms impacting the system. For example, in 2008 the system experienced Tropical Storm Fay and 74% of the excluded minutes were related to severe weather. Also, in 2011 PEF's system was impacted by the March 30<sup>th</sup> event, which contained properties and extent of damage comparable to that of a tropical storm. In 2011, 76% of the excluded minutes were related to severe weather. Even with similarly impacting weather events on the system, PEF's 2012 SAIDI performance was stronger than these two comparable years. This improved performance is a result of a continuous focus on reliability projects including, but not limited to, small wire upgrades, storm hardening, and pole replacements. Please see table below for details.*

Year	2008	2009	2010	2011	2012
<b>Reported SAIDI</b>	174.7	109.1	114.7	172.4	142.9

### b. Describe the level of detailed reliability data the Company tracks.

*The company tracks detailed reliability information in various databases. This detailed data is recorded per event, which includes affected device, time of day, length of outage, cause of outage, number of customers affected and other pertinent information.*

**c. Describe Company efforts to increase critical review of detailed reliability data.**

*In 2012, PEF continued the use of an internal goal called the Customer Reliability Excellence Monitor (CREM). CREM is an index of two system average indices and two outlier performance indices. These are measured as SAIDI, MAIFLe, CEMI<sub>4</sub> and CELID<sub>3</sub>. As discussed in PEF's prior reports, balanced improvement among these four metrics is targeted to yield higher customer satisfaction.*

*PEF continued the practice of auditing outage data to ensure accuracy and using Outage Management System Reconciliation (OMSr) as a platform which allows outage data to be captured in greater detail. The OMSr system is an upgrade and replacement of the previous outage management database.*

*PEF continued to utilize the Reliability Engagement Model that provides a consistent process and easy to use tools to evaluate individual outages with significant reliability impact on a daily basis. The Daily Reliability Exception Report is a daily report with key outage data at the operations center, region and system level. This report is intended to help focus the daily engagement efforts in reliability. The expectation is to focus on assessing the performance of the outage restoration effort on a real time basis and take the required actions to address all of the identified gaps.*

*PEF continued to utilize the CEMI device report. The CEMI device report looks at devices that have gone out four times or more in the given year. This report is distributed to planning engineers, field personnel, and management for review. Funding is set aside for issues that are determined to need addressing immediately and long term capital projects are identified and submitted for approval for the following year. The CEMI premise database looks at CEMI outliers on a premise/meter level. This database will enable Progress Energy to identify the specific customers that are not solely affected by one consistently failing device and would therefore not be identified on the CEMI device report.*

*In 2013, PEF will begin preliminary implementation of a formal Outage Follow-up Process. The purpose of this new initiative is to investigate significant outages in order to identify the primary root cause and implement engineered solutions to mitigate the reoccurrence of an event of that nature. The long term goal is to identify systemic improvements that will enhance a customer's overall reliability experience.*

**d. Describe the process used by your company to identify and select the level of detailed reliability data.**

*Customer feedback, benchmarking with other utilities, input from the FPSC, performance of assets, and trends are all considered when identifying the level of detailed reliability data.*

**e. Discuss adjustments**

- i. Generation events – *see pages 13 - 14.*
- ii. Transmission events – *see page 15.*
- iii. Distribution events – *see page 18.*
- iv. Extreme weather – *see page 16.*

**f. Discuss adjusted performance.**

*For the 2012 adjusted performance results, please see pages 19 – 25.*

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

## PART I

CAUSES OF OUTAGE EVENTS – ACTUAL ( <u>Absent Adjustments</u> )				
Utility Name: <u>Progress Energy Florida</u>			Year: <u>2012</u>	
Cause (a)	Customer Minutes Of Interruption*	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
1. Tree-Non Preventable	41,146,088	5,656	206.7	113.7
2. Tree-Preventable	37,812,900	4,626	224.2	140.7
3. Storm	26,429,161	4,627	177.9	144.5
4. Defective Equipment	18,046,297	3,311	188.3	81.5
5. U/G Primary Cable	16,506,824	2,183	256.3	92.5
6. Emergency Shutdown-PGN	14,432,784	935	171.4	40.6
7. Connector Failure	11,826,927	3,118	129.6	93.6
8. Line Maintenance	9,178,828	5,595	145.1	130.5
9. Vehicle/Const Equipment	8,614,950	316	247.4	85.9
10. Unknown	7,430,245	3,145	102.5	84.8
Subtotal	191,425,004	33,512	178.7	98.0
All Other Causes *See Pages 7 -10 for breakdown of All Other Causes	44,493,219	15,680	132.9	70.9
<b>System Totals</b>	<b>235,918,218</b>	<b>49,192</b>	<b>164.1</b>	<b>91.4</b>

\* Since the causes are ranked by CMI, a CMI column was added to this chart in order to clearly see the rankings.

PSC/ECR 102 (8/06)  
Incorporated by reference in Rule 25-6.0455, F.A.C.



# CAUSES OF OUTAGE EVENTS – ACTUAL (Absent Adjustments)

Utility Name: Progress Energy Florida

Year: 2012

<b>All Other Causes</b>	Customer Minutes Of Interruption	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Cause (a)				
Lightning	6,508,636	1,078	195.5	91.0
Animal	5,699,852	6,331	70.4	63.1
Wind	5,146,284	423	518.3	254.6
Emergency Shutdown- Customer Request	3,101,727	78	1,130.2	611.5
Substation-Breaker Failure	2,840,341	30	88.7	66.7
U/G Secondary/Service	2,192,296	3,860	183.5	411.5
Birds	2,077,103	490	91.6	51.2
Substation-Breaker- Preventable	1,949,093	26	58.1	33.9
Relay-Relay Problem	1,471,070	14	70.4	68.0
Human Error – PGN Contractor	1,173,930	84	154.9	55.9
Overload	1,148,226	200	142.7	64.0
Right-of-Way	1,078,467	27	34.5	25.6
Miscellaneous	1,056,758	128	323.3	231.6
System Undetermined	997,680	69	36.4	61.0
Dig-In	906,046	326	213.8	64.9
Human Error – PGN	794,257	743	62.5	30.6
Substation-Unknown	769,812	15	152.0	60.0
Human Error – Public	679,837	218	133.1	79.1
Corrosion	473,312	208	194.7	159.5
Substation-Breaker-Non Preventable	424,169	4	99.0	73.6
Relay-Equipment Misapplication	395,014	6	31.9	31.7

**CAUSES OF OUTAGE EVENTS – (Absent Adjustments)**

Utility Name: Progress Energy Florida

Year: **2012**

<b>All Other Causes</b>	Customer Minutes Of Interruption	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Cause (a)				
Transmission-Lightening	366,823	7	88.6	90.4
Relay-Human Error-PGN	355,509	4	156.8	55.6
Foreign Material in Line	300,905	62	142.1	52.7
Substation-Animal	239,257	4	106.3	80.5
Relay-Wiring Error	228,029	3	54.0	53.9
Relay-Incorrect Setting Applied	211,890	8	23.8	23.8
Transmission- Conductor/Static	178,066	3	65.8	60.0
Relay-Foreign Material In elay	159,489	2	26.6	27.0
Transmission-Tree-Non Preventable	148,476	2	313.7	134.7
Relay-Setting Error	129,487	6	34.6	28.9
Construction Equipment	126,758	16	154.5	34.5
Substation-Lightning	118,783	1	239.0	239.0
Substation-Transformer Failure	115,797	3	41.0	41.0
Substation-Switch Failure	106,974	4	13.5	21.8
O/H Secondary Cable	106,414	348	129.5	130.7
Transmission-Equip Misapplication	104,432	1	210.6	125.4
Substation-Current Transformer	85,444	1	40.7	41.0

**CAUSES OF OUTAGE EVENTS – (Absent Adjustments)**

Utility Name: Progress Energy Florida

Year: **2012**

<b>All Other Causes</b>	Customer Minutes Of Interruption	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Cause (a)				
Vandalism	83,332	127	72.9	17.3
Substation-Switch Error-Sub	76,608	1	112.1	112.0
Transmission – Unknown	76,236	1	87.2	44.6
Substation-Defective Equipment	54,001	8	8.8	6.6
Transmission-Human Err-Contractor	44,323	2	41.7	20.0
Transmission-Cross arm Failure	40,693	2	46.0	62.9
Improper Installation	37,098	28	117.0	106.6
Equipment Misapplication	31,901	12	88.3	63.2
Transmission-Insulator Failure	15,884	2	9.4	9.6
Relay-Reclosing Relay Failure	15,780	1	12.0	12.0
Customer Request	15,236	25	83.0	25.5
Substation-Planned Outages	11,224	4	116.0	8.2
Voltages OK at Meter-No Customer Contact	9,147	520	11.9	14.8
Relay-System Operation	4,529	0	0	7.0
Transmission-Human Error-PGN	3,703	2	45.3	19.1
Inaccessible Meter	2,458	97	25.4	21.9
Relay-External Control SCADA	1,707	1	2.9	3.0



# CAUSES OF OUTAGE EVENTS - (Absent Adjustments)

Utility Name: Progress Energy Florida

Year: **2012**

<b>All Other Causes</b>	Customer Minutes Of Interruption	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Cause (a)				
Relay-Unknown	1,596	1	52.2	29.6
O/H Service Cable	1,315	13	101.1	101.2
<b>Other Causes</b>	<b>44,493,214</b>	<b>15,680</b>	<b>132.9</b>	<b>70.9</b>



## THREE PERCENT FEEDER LIST - ACTUAL (UNADJUSTED)

Utility Name: Progress Energy Florida Year: 2012

Primary Circuit Id. No. or Name (a)	Sub-station Origin (b)	Location (c)	Number of Customers						Avg 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)					
N64	WAUKEENAH	MONTICELLO	499	110	2	12	623	9	229.9	144.2	N	-	6/30/13
N231	EASTPOINT	MONTICELLO	772	137	1	1	911	9	333.6	98.7	N	2	6/30/13
K779	ISLESWORTH	BUENA VISTA	935	89	-	-	1,024	7	148.6	53.6	N	-	6/30/13
W0105	CANOE CREEK	CONWAY	449	118	-	-	567	6	144.9	87.6	Y	3	4/26/11
C4501	SEVEN SPRINGS	SEVEN SPRINGS	1,960	164	-	-	2,124	6	245.7	171.1	N	1	3/28/12
M579	ALTAMONTE	LONGWOOD	1,651	271	1	1	1,924	6	149.4	56.2	N	1	9/28/11
A78	INGLIS	INVERNESS	1,070	133	5	5	1,213	6	127.1	56.0	N	-	9/30/12
W0629	HOLOPAW	CONWAY	803	234	10	10	1,057	6	150.4	103.4	Y	2	6/30/13
X134	CROSSROADS	ST PETERSBURG	1,366	257	-	-	1,623	5	84.1	84.1	N	-	6/30/13
M657	MYRTLE LAKE	LONGWOOD	767	53	-	-	820	5	311.6	37.2	Y	2	5/1/12
N38	OCHLOCKNEE	MONTICELLO	889	51	-	-	940	5	164.7	205.4	N	-	5/18/12
A321	WEIRSDALE	OCALA	1,435	119	2	2	1,558	5	117.3	96.2	N	-	7/27/12
N1	MADISON	MONTICELLO	905	129	-	-	1,034	5	118.3	92.8	N	1	1/12/12
X132	CROSSROADS	ST PETERSBURG	680	155	4	4	843	5	108.1	35.1	N	-	6/30/13
N58	APALACHICOLA	MONTICELLO	630	206	9	9	854	5	279.5	120.1	N	2	6/30/13
C305	TARPON SPRINGS	SEVEN SPRINGS	1,610	272	11	11	1,904	5	174.7	41.3	N	-	6/30/13
W0029	CASSELBERRY	LONGWOOD	696	61	-	-	757	5	182.6	137.4	N	-	6/30/13
C4001	FLORA MAR	SEVEN SPRINGS	1,812	274	-	-	2,086	5	132.8	29.1	N	-	6/30/13
A51	MCINTOSH	OCALA	1,066	182	4	4	1,256	5	178.9	107.2	Y	1	6/30/13
N43	CARRABELLE	MONTICELLO	1,429	158	1	1	1,589	4	610.0	428.8	N	-	5/18/12
N48	CARRABELLE BEACH	MONTICELLO	518	89	-	-	607	4	445.7	266.8	N	1	3/2/12
J240	ULMERTON	WALSINGHAM	213	244	17	17	491	4	185.4	150.2	N	-	6/30/13
M451	BAY RIDGE	APOPKA	1,192	167	2	2	1,363	4	129.5	126.1	N	-	6/30/13
A154	SILVER SPRINGS	OCALA	719	144	3	3	869	4	119.3	118.5	Y	1	5/1/12
A205	ZUBER	OCALA	1,288	191	2	2	1,483	4	157.4	116.0	N	-	6/30/13
A98	BROOKSVILLE	INVERNESS	1,129	158	1	1	1,289	4	187.3	115.0	N	-	6/30/13
A45	GEORGIA PACIFIC	OCALA	938	247	-	-	1,185	4	106.9	106.1	N	-	6/30/13
A195	ARCHER	OCALA	1	-	2	2	5	4	106.0	106.0	N	1	6/30/13
A124	WILLISTON	INVERNESS	1,590	138	-	-	1,728	4	125.3	103.1	N	-	10/12/12
X120	GATEWAY	WALSINGHAM	1,456	223	20	20	1,719	4	124.7	101.7	N	-	6/30/13
A202	ZUBER	OCALA	987	193	6	6	1,192	4	164.3	100.1	N	-	7/27/12
A212	TROPIC TERRACE	INVERNESS	1,024	248	1	1	1,274	4	147.2	99.1	N	-	6/30/13
A118	CROSS CITY	OCALA	672	148	2	2	824	4	119.4	93.9	N	-	6/30/13
W0630	HOLOPAW	CONWAY	584	60	-	-	644	4	197.1	89.3	N	-	6/30/13
A50	MCINTOSH	OCALA	678	133	3	3	817	4	127.2	63.8	N	-	6/30/13
X136	CROSSROADS	ST PETERSBURG	479	16	1	1	497	4	138.3	56.4	N	-	6/30/13
C2805	HIGHLANDS	CLEARWATER	2,852	100	-	-	2,952	4	210.5	55.5	N	-	6/30/13
A39	MARTIN	OCALA	349	116	-	-	465	4	144.3	54.9	N	1	4/26/11
J890	SEMINOLE	WALSINGHAM	2,282	250	-	-	2,532	4	211.3	53.8	N	-	6/30/13
C8	CLEARWATER	CLEARWATER	251	78	-	-	329	4	176.9	52.2	N	-	6/30/13

LBAR AND CAIDI includes all devices.

PSC/ECR 102 (8/06)

Incorporated by reference in Rule 25-6.0455, F.A.C.



### PART III

SYSTEM RELIABILITY INDICES – ACTUAL <u>(ABSENT ADJUSTMENTS)</u>					
Utility Name: Progress Energy Florida Year: 2012					
District or Service Area (a)	SAIDI (b)	CAIDI (c)	SAIFI (d)	MAIFle (e)	CEMI5 (f)
<b>North Coastal</b>	344.0	138.5	2.48	8.9	11.64%
Inverness	206.1	96.5	2.14	10.8	6.89%
Monticello	778.5	221.3	3.52	9.1	22.52%
Ocala	205.3	94.5	2.17	7.1	9.35%
<b>South Coastal</b>	144.8	90.3	1.60	10.5	1.81%
Clearwater	115.8	71.8	1.61	11.3	1.51%
Seven Springs	144.7	84.5	1.71	10.1	2.70%
St. Petersburg	169.1	99.0	1.71	10.8	2.04%
Walsingham	162.6	109.8	1.48	9.9	1.15%
Zephyrhills	57.1	68.2	0.84	10.4	0.05%
<b>North Central</b>	107.4	74.3	1.45	9.9	1.85%
Apopka	109.6	72.9	1.50	12.2	1.73%
Deland	115.2	68.3	1.69	9.1	2.69%
Jamestown	88.4	77.1	1.15	8.5	0.35%
Longwood	126.9	78.5	1.62	10.0	3.50%
<b>South Central</b>	80.8	67.8	1.19	7.8	1.36%
Buena Vista	64.7	75.2	0.86	5.3	0.06%
Clermont	62.8	59.2	1.06	8.9	1.64%
SE Orlando	109.1	67.4	1.62	6.2	4.09%
Highlands	91.1	59.7	1.52	9.5	0.47%
Lake Wales	70.9	66.6	1.06	9.2	0.47%
Winter Garden	82.3	73.8	1.11	9.4	1.75%
<b>SYSTEM</b>	<b>142.9</b>	<b>91.4</b>	<b>1.56</b>	<b>9.5</b>	<b>2.85%</b>

PSC/ECR 102 (8/06)

Incorporated by reference in Rule 25-6.0455, F.A.C.

## GENERATION EVENTS – ADJUSTMENTS (Rule 25-6.0455 F.A.C.)

- a. Discuss each generation event that resulted in customer outages.

*There were no events to report for 2012.*

- b. Address whether the event was localized or system-wide.

*N/A*

- c. Describe the Company's efforts to avoid or minimize any similar events in the future in terms of the level of costs incurred and outage duration.

*N/A*

- d. Provide the 2012 service reliability data for each generation outage event that is excluded from your Company's 2012 Annual Distribution Reliability Report pursuant to Rule 25-6.0455.

Generation Event	N/A
<b>C</b>	N/A
<b>CMI</b>	N/A
<b>CI</b>	N/A
<b>SAIDI</b>	N/A
<b>SAIFI</b>	N/A

*Please see attached Form 103.*

## PART I

CAUSES OF OUTAGE EVENTS – <u>ADJUSTED</u>			
Utility Name: Progress Energy Florida		Year: <b>2012</b>	
Cause (a)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Generation	N/A	N/A	N/A
System Totals:	N/A	N/A	N/A

PSC/ECR 103 (8/06)  
 Incorporated by reference in Rule 25-6.0455, F.A.C.

## **TRANSMISSION EVENTS – ADJUSTMENTS (Rule 25-6.0455 F.A.C.)**

- a. Discuss each transmission event that resulted in customer outages.**

*See Attachment A - "PEF Transmission Outages 2012 - Major Events Excluded".*

- b. Address whether the event was localized or system-wide.**

*See Attachment A - "PEF Transmission Outages 2012 - Major Events Excluded".*

- c. Describe the Company's efforts to avoid or minimize any similar events in the future in terms of the level of costs incurred and outage duration.**

*Outages that are less than 500,000 customer minutes are reviewed and investigated by local transmission maintenance staff. The results from these investigations are looked at from a system perspective by Progress Energy Florida's Transmission Department Asset Management Group to determine if the failure is isolated or similar failures are occurring on another part of the system. When similar failures are noted on the system, further investigation is performed to determine if a solution should be implemented system wide to remedy the problem. If a project is required, it is submitted for prioritization against other projects.*

*If the outage exceeds 500,000 customer minutes, a team is assembled to perform a root cause investigation. The root cause investigation will identify corrective actions needed to prevent repeat occurrences. If a project is required, it is submitted for prioritization against other projects.*

- d. Provide the 2012 service reliability data for each generation outage event that is excluded from your Company's 2012 Annual Distribution Reliability Report pursuant to Rule 25-6.0455**

*See Attachment B - "PEF Transmission Outages 2012 - Major Events Only".*

## **EXTREME WEATHER - EXCLUSIONS (Rule 25-6.0455 F.A.C.)**

- a. Include in the discussion, the type of weather event, strength (wind speeds/surge-flood levels), locations affected, source of meteorological information, and the performance of overhead and underground systems.**

### *Distribution*

*See Attachment C - "Summary of Severe Weather Dates – 2012".*

### *Transmission*

*See Attachment B - "PEF Transmission Outages 2012 - Major Events Only".*

- b. Describe the Company's efforts to avoid or minimize in terms of costs incurred and outage duration any similar events in the future (Example: Reference specific storm hardening activity)**

### *Distribution*

*Please see response to "Storm Hardened Facilities" on Page 40. These efforts are also addressed in our approved Storm Hardening Plan that was filed on May 3, 2010 (Attachment J).*

### *Transmission*

*Please see response to "Storm Hardened Facilities" on Page 40. These efforts are also addressed in our approved Storm Hardening Plan that was filed on May 3, 2010 (Attachment J).*

- c. If the method of deriving the weather exclusion is different from the method used for 2010, please explain the changes and provide the CMI and CI for 2011 using the prior method.**

*For Distribution & Transmission - The exclusion method used is the same for 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012.*

- d. Provide the 2012 service reliability data for each extreme weather outage event that is excluded from your Company's 2012 Annual Distribution Reliability Report pursuant to Rule 25-6.0455.

Distribution

Dates	Overhead vs. Underground	C	CMI	CI	Duration	L-Bar	N
May 27 - May 29	Overhead	1,651,089	2,272,331	34,681	59,070	114.7	515
	Underground		185,275	1,413	17,552	190.8	92
Jun 24 - Jun 27	Overhead	1,651,089	74,299,761	257,577	1,903,876	616.5	3,088
	Underground		4,174,386	10,181	235,945	526.7	448
Aug 26 to Aug 28	Overhead	1,651,089	2,404,278	32,582	77,816	124.7	624
	Underground		156,209	1,431	15,414	142.7	108
Oct 26 to Oct 29	Overhead	1,651,089	2,764,967	38,956	68,160	125.3	544
	Underground		143,751	1,551	15,440	133.1	116
Dec 10	Overhead	169,798	62,981	1,482	659	73.2	9
	Underground		-	-	-	-	-

Transmission

See Attachment B - "PEF Transmission Outages 2012 - Major Events Only".



**OTHER DISTRIBUTION – ADJUSTMENTS (Rule 25-6.0455, F.A.C.)**

- a. Discuss the causation of each type of distribution event that resulted in customer complaints.**

*Since Progress Energy Florida has not taken other causations as exclusions for any events in 2012, PEF has no information to report in this section.*

- b. Describe the Company's efforts to avoid or minimize any similar events in the future in terms of the level of costs incurred and outage duration.**

*Since Progress Energy Florida has not taken other causations as exclusions for any events in 2012, PEF has no information to report in this section.*

- c. Provide the 2012 service reliability data for each distribution outage event that is excluded from your Company's 2012 Annual Distribution Reliability Report pursuant to Rule 25-6.0455**

- i. A table
- ii. Electronic file
- iii. Causation, Date, CMI, CI Total Repair Cost, etc.

*Since Progress Energy Florida has not taken other causations as exclusions for any events in 2012, PEF has no information to report in this section.*



## 2012 ADJUSTED RELIABILITY (Rule 25-6.0455, F.A.C.)

*Progress Energy Florida's 2012 annual adjusted SAIDI is the lowest since PEF has been recording reliability performance goals. PEF's increased focus on reliability improvement projects in the North Coastal Region during 2011 and 2012 significantly improved the customer's overall reliability experience. Further evidence on the improved reliability across PEF's service territory is the reduction of customer initiated complaints to the lowest level observed in 9 years. This performance validates the processes and analytical techniques to target projects and maintenance for continuous reliability improvement. PEF's annual adjusted reliability goal performance always includes a degree of variability due to the number of confirmed tornadoes affecting PEF service territory. PEF's consistent adherence to the PSC guidelines to only exclude confirmed tornadoes may have a negative impact on adjusted reliability indices if tornadoes are not confirmed by the National Weather Service (NWS). During the previous three years there has been an increase in severe storms that quickly materialize into major weather events. These events were not excludable under F.A.C guidelines and PEF's SAIDI was severely impacted in those years. PEF's service territory did not experience any of these type events in 2012. As a result, PEF's SAIDI in 2012 was comparable to 2007 and 2008 performance, as per the table below, prior to the occurrence of these erratic weather events.*

<i>Year</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>
<i>Adjusted SAIDI</i>	78.3	75.7	82.8	93.3	86.9	73.4

**a. Causes of outages events – see attached forms.**

**i. 5-yr patterns/trends in outage causation for each of the top 10 causes of outage events, including the frequency, duration, restoration time, cost incurred to restore service, remediation programs and costs.**

- *See Attachment D - "5 yr Trend by Cause Code" Spreadsheet for 2008 - 2012.*

**ii. The process used to identify and select the actions to improve the performance in each of the top 10 causes of outages.**

*PEF prioritizes the reliability improvement action plan by balancing historical and current year performance. System devices are evaluated based on the number of interruptions, customers interrupted (CI), and customer minutes of interruption (CMI). In addition, current year performance is monitored monthly to identify emergent and seasonal issues including load balancing for cold weather and the need for foot patrols of devices experiencing multiple interruptions.*

**iii. 2012 activities and budget levels addressing each of the 10 causes of service outage.**

- See Attachment E - “2013 Program Budget” Spreadsheet”.

**b. Three percent Feeder list**

- Identify whether any feeders appear on the 3% listing more than once within a consecutive 5-yr. period and any actions implemented to improve feeder performance.**

- See attached form on Page 24.

- The process used to identify and select the actions to improve the performance of feeders in the 3% feeder list, if any.**

*PEF prioritizes the reliability improvement action plan for 3% Feeder List by balancing historical and current year performance. Feeders are evaluated based on the number of interruptions, customers interrupted (CI), and customer minutes of interruption (CMI). In addition, current year performance is monitored monthly to identify emergent and seasonal issues including load balancing for cold weather and the need for foot patrols of feeders experiencing multiple interruptions.*

- 2013 activities and budget levels directed at improving feeder performance.**

*Feeders are prioritized for maintenance and replacement work based on several criteria including customer minutes of interruption (CMI), number of interruptions, interruption cause code, and CEMI repeat outage performance. This process results in a work plan targeted at feeders and devices having the greatest impact on reliability indices and customer satisfaction. This process has resulted in consistent and sustained reliability performance.*

*The 3% feeder list is based solely on number of interruptions and does not take into consideration any of the additional criteria above. While all feeders on the 3% list are patrolled for corrective action, the possibility exists that they could appear on the list more than once due to their relative impact on system reliability indices.*

*For the 2013 budget levels, please see Attachment E - “2013 Program Budget” Spreadsheet.*

**c. Regional Reliability Indices – see attached forms.**

- 5-Yr. patterns/trends in each regions reliability for each index and on any overall basis.**

- See Attachment F - “5 yr Sum by Region” Spreadsheet.

**ii. The process used to identify and select actions to improve the regional reliability trends.**

- *Regional reliability trends are tracked to ensure alignment with the system level goals they support. Specific device level improvements are measured and prioritized at a system level to ensure maximum benefit for resources expended.*

**iii. Discuss any 2013 projected activities and budget levels directed at improving regional reliability performance.**

- *See Attachment E - "2013 Program Budget" Spreadsheet. Regional reliability trends are tracked to ensure alignment with the system level goals they support. Specific device level improvements are measured and prioritized at a system level to ensure maximum benefit for resources expended.*
- *In 2013, PEF will begin preliminary implementation of a formal Outage Follow-up Process. The purpose of this new initiative is to investigate significant outages in order to identify the primary root cause and implement engineered solutions to mitigate the reoccurrence of an event of that nature. The long term goal is to identify systemic improvements that will enhance a customer's overall reliability experience.*

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

**PART I**

<b>CAUSES OF OUTAGE EVENTS – <u>ADJUSTED</u></b>				
Utility Name: Progress Energy Florida			Year: <b>2012</b>	
Cause (a)	Customer Minutes Of Interruption*	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
1.) Tree-Non Preventable	24,469,699	4,438	150.4	87.0
2.) Defective Equipment	15,801,940	3,122	177.3	76.4
3.) U/G Primary Cable	14,908,936	2,076	252.2	88.7
4.) Tree-Preventable	14,183,243	3,229	120.1	76.5
5.) Connector Failure	10,534,776	2,892	114.3	89.5
6.) Storm	8,570,099	3,826	102.9	85.3
7.) Vehicle/Const Equip	8,216,261	303	239.2	84.6
8.) Animal	5,476,469	6,168	69.5	62.3
9.) Lightning	4,856,314	980	191.5	78.7
10.) Unknown	4,062,705	2,909	80.1	56.4
<b>Subtotal</b>	<b>111,080,442</b>	<b>29,943</b>	<b>126.2</b>	<b>80.6</b>
All Other Causes *See Page 23 for breakdown of All Other Causes	10,145,327	6,577	143.3	51.0
<b>System Totals:</b>	<b>121,225,769</b>	<b>36,520</b>	<b>129.3</b>	<b>76.8</b>

\* Since the causes are ranked by CMI, a CMI column was added to this chart in order to clearly see the rankings.

PSC/ECR 103 (8/06)  
Incorporated by reference in Rule 25-6.0455, F.A.C.



# CAUSES OF OUTAGE EVENTS – ADJUSTED

Utility Name: Progress Energy Florida

Year: **2012**

<b>All Other Causes</b>	Customer Minutes Of Interruption	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Cause (a)				
Birds	2,036,951	469	90.6	50.6
Overload	1,142,106	196	139.3	63.9
Human Error-PGN Contractor	981,990	82	142.9	47.3
Right-Of-Way	940,161	26	34.2	24.2
Wind	929,834	168	129.5	98.8
Dig-In	884,754	319	211.4	63.7
U/G Secondary/Service	835,372	3,642	168.4	183.5
Human Error-PGN	790,039	726	62.1	30.6
Human Error-Public	626,008	206	128.4	79.6
Corrosion	303,720	160	150.9	113.1
Miscellaneous	210,294	37	81.1	72.0
Foreign Material In Line	158,558	46	78.1	35.3
Construction Equipment	108,315	15	132.1	29.9
Vandalism	83,004	124	72.9	17.2
O/H Secondary Cable	51,490	316	125.7	125.9
Equipment Misapplication	31,745	11	94.0	63.9
Improper Installation	29,786	22	104.2	91.9
O/H Service Cable	1,200	12	100.0	100.0
All Other Causes	10,145,327	6,577	143.3	51.0

PART II

THREE PERCENT FEEDER LIST - ADJUSTED

Utility Name: PROGRESS ENERGY FLORIDA, INC. Year: 2012

PRIMARY CIRCUIT ID. NO. OR NAME	SUBSTATION  ORIGIN	LOCATION	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)					
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
M579	ALTAMONTE	LONGWOOD	1,651	271	1	22	1,945	6	141.3	55.8	N	-	6/30/13
A321	WEIRSDALE	OCALA	1,435	119	2	16	1,572	5	111.1	92.1	N	-	7/27/12
N64	WAUKEENAH	MONTICELLO	499	110	2	12	623	5	127.8	77.3	N	-	6/30/13
K779	ISLESWORTH	WINTER GARDEN	935	89	-	13	1,037	4	144.7	71.5	N	-	6/30/12
M657	MYRTLE LAKE	LONGWOOD	767	53	-	3	823	3	305.4	45.1	N	-	5/1/12
W0523	CASSADAGA	DELAND	1,305	17	-	15	1,337	3	81.9	80.5	N	-	6/30/13
J247	ULMERTON	WALSINGHAM	-	336	3	69	408	3	117.9	30.0	N	-	6/30/13
W0629	HOLOPAW	CONWAY	803	234	10	21	1,068	3	151.3	138.8	Y	2	6/30/13
X132	CROSSROADS	ST. PETERSBURG	680	155	4	14	853	3	111.6	18.8	N	-	6/30/13
C4989	CURLEW	SEVEN SPRINGS	2,220	111	-	3	2,334	3	159.0	61.4	N	-	6/30/13
K957	BOGGY MARSH	BUENA VISTA	2,002	137	-	13	2,152	3	116.5	65.9	N	-	6/30/13
A212	TROPIC TERRACE	INVERNESS	1,024	248	1	34	1,307	3	137.8	102.3	N	-	6/30/13
W0017	CASSELBERRY	JAMESTOWN	1,489	21	-	7	1,517	3	230.8	79.0	N	-	6/30/13
W1108	DELAND EAST	DELAND	1,835	108	1	17	1,961	3	144.6	40.9	N	-	6/30/13
C103	DUNEDIN	CLEARWATER	2,792	169	-	31	2,992	3	129.0	60.8	N	-	6/30/13
K4841	MONTVERDE	CLERMONT	1,503	66	4	14	1,587	3	132.6	88.1	N	-	6/30/13
C4501	SEVEN SPRINGS	SEVEN SPRINGS	1,960	164	-	14	2,138	3	131.6	18.8	N	-	6/30/13
M103	WEKIVA	APOPKA	308	248	-	12	568	3	159.8	46.7	N	-	6/30/13
A39	MARTIN	OCALA	349	116	-	30	495	3	130.7	63.6	N	2	6/30/13
X120	GATEWAY	WALSINGHAM	1,456	223	20	32	1,731	3	109.9	97.9	N	-	6/30/13
W0176	OVIEDO	JAMESTOWN	1,530	43	-	10	1,583	3	168.5	33.9	N	-	6/30/13
W0029	CASSELBERRY	JAMESTOWN	696	61	-	19	776	3	124.5	62.0	N	-	6/30/13
A124	WILLISTON	OCALA	1,590	138	-	3	1,731	3	140.6	122.9	N	-	10/12/12
C8	CLEARWATER	CLEARWATER	251	78	-	11	340	3	109.9	37.6	N	1	6/30/13
M445	BAY RIDGE	APOPKA	520	131	1	6	658	3	136.6	64.9	N	1	6/30/13
K170	FORT MEADE	HIGHLANDS	2	2	-	-	4	3	166.9	91.3	N	-	7/27/12
A78	INGLIS	INVERNESS	1,070	133	5	15	1,223	3	130.9	56.7	N	1	9/30/12
C4502	SEVEN SPRINGS	SEVEN SPRINGS	1,235	61	1	14	1,311	3	147.0	38.6	N	-	6/30/13
A196	ARCHER	OCALA	659	163	-	71	893	3	141.5	115.3	Y	5	6/30/13
A195	ARCHER	OCALA	1	-	2	-	3	3	109.4	109.3	N	1	6/30/13
K1104	REEDY LAKE	BUENA VISTA	1,034	92	-	31	1,157	2	223.8	213.7	N	-	6/30/13
K245	WAUCHULA	HIGHLANDS	802	143	6	54	1,005	2	96.1	179.2	N	1	6/30/13
A431	HERNANDO AIRPORT	INVERNESS	1,325	102	1	31	1,459	2	118.8	166.7	N	-	6/30/13
N38	OCHLOCKNEE	MONTICELLO	889	51	-	12	952	2	116.2	155.3	N	-	5/8/12
M451	BAY RIDGE	APOPKA	1,192	167	2	15	1,376	2	132.1	135.0	N	-	6/30/13
W0902	BARBERVILLE	DELAND	1,070	362	1	35	1,468	2	147.5	132.4	Y	3	6/30/13
N323	SUWANNEE PLANT	MONTICELLO	63	22	-	1	86	2	124.7	128.9	N	-	6/30/13
A51	MCINTOSH	OCALA	1,066	182	4	35	1,287	2	161.1	125.6	N	-	5/1/12
W0630	HOLOPAW	CONWAY	584	60	-	10	654	2	184.6	119.5	N	-	6/30/13
A84	INVERNESS	INVERNESS	1,423	266	-	48	1,737	2	126.6	115.8	N	-	6/30/13

LBAR AND CAIDI includes all devices.



### PART III

<b>SYSTEM RELIABILITY INDICES – ADJUSTED</b>					
Utility Name: Progress Energy Florida      Year: 2012					
District or Service Area (a)	SAIDI (b)	CAIDI (c)	SAIFI (d)	MAIFle (e)	CEMI5 (f)
<b>North Coastal</b>	135.7	91.5	1.48	8.8	3.46%
Inverness	124.6	90.8	1.37	10.6	2.32%
Monticello	166.6	91.8	1.82	9.0	4.57%
Ocala	127.0	91.9	1.38	7.0	3.82%
<b>South Coastal</b>	58.5	66.0	0.89	10.3	0.34%
Clearwater	68.3	68.0	1.00	11.1	0.56%
Seven Springs	63.5	64.6	0.98	9.9	0.56%
St. Petersburg	56.8	64.7	0.88	10.5	0.22%
Walsingham	47.0	68.4	0.69	9.6	0.05%
Zephyrhills	43.5	59.7	0.73	10.0	0.01%
<b>North Central</b>	79.3	80.7	0.98	9.6	0.82%
Apopka	76.6	90.5	0.85	11.8	0.50%
Deland	85.8	80.8	1.06	8.8	0.85%
Jamestown	67.6	74.6	0.91	8.3	0.16%
Longwood	94.5	79.9	1.18	9.9	2.15%
<b>South Central</b>	62.9	78.6	0.80	7.6	0.49%
Buena Vista	55.2	89.3	0.62	5.2	0.00%
Clermont	47.7	66.5	0.72	8.8	0.85%
SE Orlando	84.2	78.2	1.08	6.0	1.54%
Highlands	68.3	71.7	0.95	9.2	0.13%
Lake Wales	53.6	83.5	0.64	9.1	0.11%
Winter Garden	62.8	74.0	0.85	9.1	0.58%
<b>SYSTEM</b>	<b>73.4</b>	<b>76.8</b>	<b>0.96</b>	<b>9.3</b>	<b>0.85%</b>

PSC/ECR 103 (8/06)

Incorporated by reference in Rule 25-6.0455, F.A.C.

## FEEDER SPECIFIC DATA – Expanded to include OH/UG details

**Provide the following information for each feeder circuit in service during 2012. If any data is not available explain whether the Company has any plans to begin tracking such data and if not, why.**

*For (A) thru (Y) - See Attachment G - CD containing Excel File – “2012 Feeder Specific Data”.*

- *In 2008, PEF transitioned from FRAMME to G-Electric. This change supported the move from a location-based GIS system to an asset-based GIS system. All 2012 data was obtained from G-Electric.*

*For (Z) – See Attachment G - “2012 Summer Feeder Peaks”.*

(A) Feeder ID	<i>See Attachment G</i>
(B) Sub-Region in which the feeder is located	<i>See Attachment G</i>
(C) Number of overhead lateral lines	<i>See Attachment G</i>
(D) Number of overhead lateral miles	<i>See Attachment G</i>
(E) Number of Customers served on OH lateral lines	<i>See Attachment G</i>
(F) CMI for overhead lateral lines	<i>See Attachment G</i>
(G) CI for overhead lateral lines	<i>See Attachment G</i>
(H) Number of underground lateral lines	<i>See Attachment G</i>
(I) Number of underground lateral miles	<i>See Attachment G</i>
(J) Number of customers served on UG lateral lines	<i>See Attachment G</i>
(K) CMI for underground lateral lines	<i>See Attachment G</i>
(L) CI for underground lateral lines	<i>See Attachment G</i>
(M) Number of automatic line sectionalizing devices on the lateral lines	<i>See Attachment G</i>
(N) Number of automatic line sectionalizing devices on the feeder	<i>See Attachment G</i>
(O) Whether the feeder circuit is looped	<i>See Attachment G</i>
(P) Total length of the feeder circuit	<i>See Attachment G</i>
(Q) Length of underground portion of the feeder circuit	<i>See Attachment G</i>
(R) Number of customers served by underground feeders	<i>See Attachment G</i>
(S) CMI for underground feeders	<i>See Attachment G</i>
(T) CI for underground feeders	<i>See Attachment G</i>
(U) Length of overhead portion of the feeder circuit	<i>See Attachment G</i>
(V) Number of customers served by overhead feeders	<i>See Attachment G</i>
(W) CMI for overhead feeders	<i>See Attachment G</i>
(X) CI for overhead feeders	<i>See Attachment G</i>
(Y) Load growth since December 31, 2009	<i>See Attachment G</i>
(Z) Peak load recorded through December 31, 2009	<i>See Attachment G</i>



## DISTRIBUTION SUBSTATION (Rule 25-6.0455, F.A.C.)

**a. Describe the five year patterns/trends in reliability performance of distribution substations.**

*The five year patterns/trends in reliability performance of distribution substations is best described by the performance indices. These indices are used for calculating system reliability:*

- **SAIDI – System Average Interruption Duration Index (minutes/customer).**  
*Reflects the average number of minutes a customer was without power system wide. It is determined by dividing the sum of customer-minutes of interruption by the average number of customers served during a period.*
- **CAIDI - Customer Average Interruption Duration Index (minutes/customer).** *CAIDI is the average customer-minutes of interruption per customer interruption. It approximates the average length of time required to complete service restoration. It is determined by dividing the sum of all customer-minutes of interruption durations by the number of customer interruptions during a period. CAIDI measures how long it takes PEF to restore service after an interruption.*
- **SAIFI - System Average Interruption Frequency Index.** *SAIFI is the average number of interruptions per customer per a certain period. It is determined by dividing the total number of customer interruptions by the average number of customers served during a period.*

*The following charts will show the trending for these Reliability Indices:*

Table 1: 2012 PEF SAIDI Reliability Indices

Section	Grid SAIDI	Grid Customers Affected	Grid CMI	SECI SAIDI	Retail SAIDI
CTA	3.006	125561	6572728	3.197	2.952
NTA	3.165	138327	6922377	7.797	1.509
STA	1.443	72542	3154908	0.008	1.929
Florida	7.614	336430	16650013.8	11.003	6.39

*In 2012, Grid SAIDI and Retail SAIDI decreased from 2011. SECI SAIDI increased in 2012 from 2011. SECI (Seminole Electric Cooperatives, Inc.) represents its electric cooperative members in Florida.*

The affected customer numbers in 2012 decreased to 16.65 million CMI from the 20.8 million CMI in 2011. This is a decrease of approximately 20.1% which is about the same decrease of the average interruption number per customer. This particular number went from 9.573 in 2011 to 7.614 in 2012.

The majority of the customer interruptions in 2012, roughly 65% of the total, occurred during the months of May to September, inclusive, as shown in Fig.4. Lightning, substation & line equipment failures, human error and animals were the main contributors to higher CMI during this period.

PEF SAIDI Trending (2008-2012)

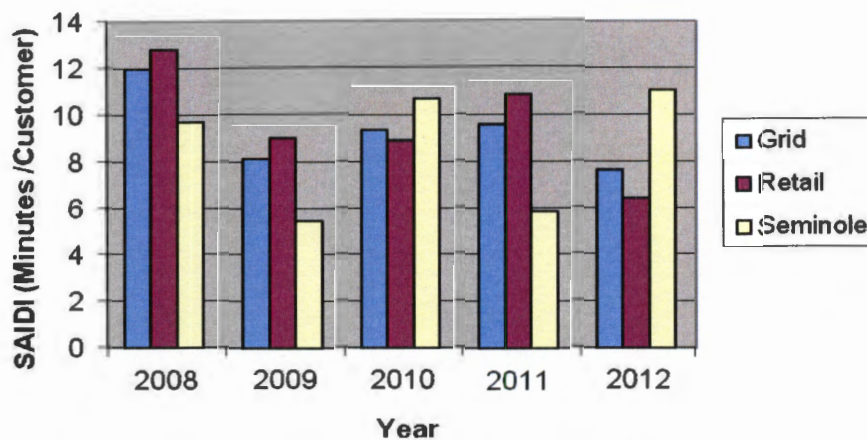


Fig.1 PEF SAIDI Trending (2008-2012)

Grid KPIs	2008	2009	2010	2011	2012
Customers (Thousands)	454.08	551.89	499.04	337.592	336.43
CMI (Millions)	26.124	17.548	20.222	20.803	16.65
SAIDI	11.9	8.101	9.336	9.573	7.614
CAIDI	57.53	31.8	44.29	68.116	46.992
SAIFI	0.28	0.42	0.2	0.16	0.136
FSO *	40	38	66	46	46

Table 2: PEF Statistics (2008-2012)

\* Progress Energy proposes to transition to a FOHMY (Forced Outages per Hundred Miles per Year) metric in lieu of FSOs because the FOHMY metric measures the number of transmission line events, momentary AND sustained, that are incurred per hundred circuit miles per year.

PEF KPIs Trending (2008-2012)

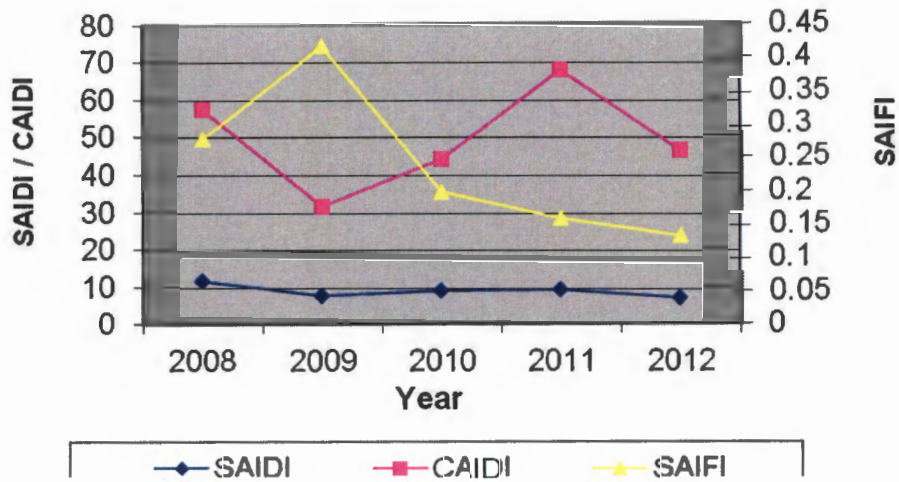


Fig.2 PEF Key Performance Indicators Trending (2008-2012)

PEF CMI Trending (2008-2012)

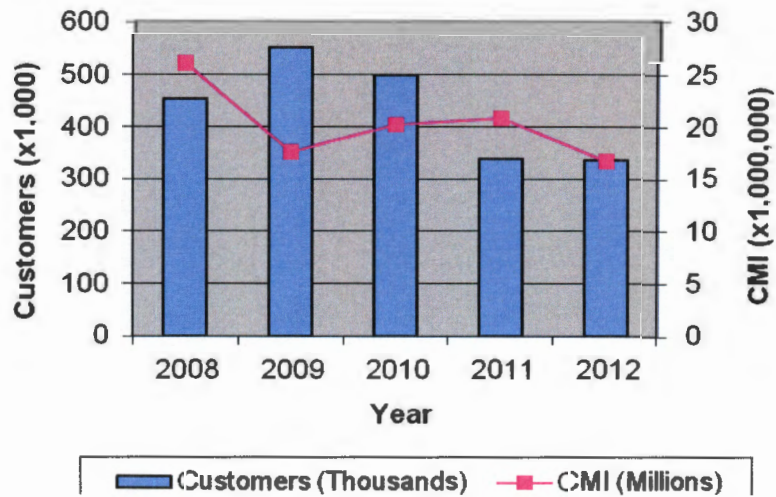


Fig.3 PEF Customers Minute Interruption Trending (2008-2012)



### PEF CMI Per Month (2008-2012)

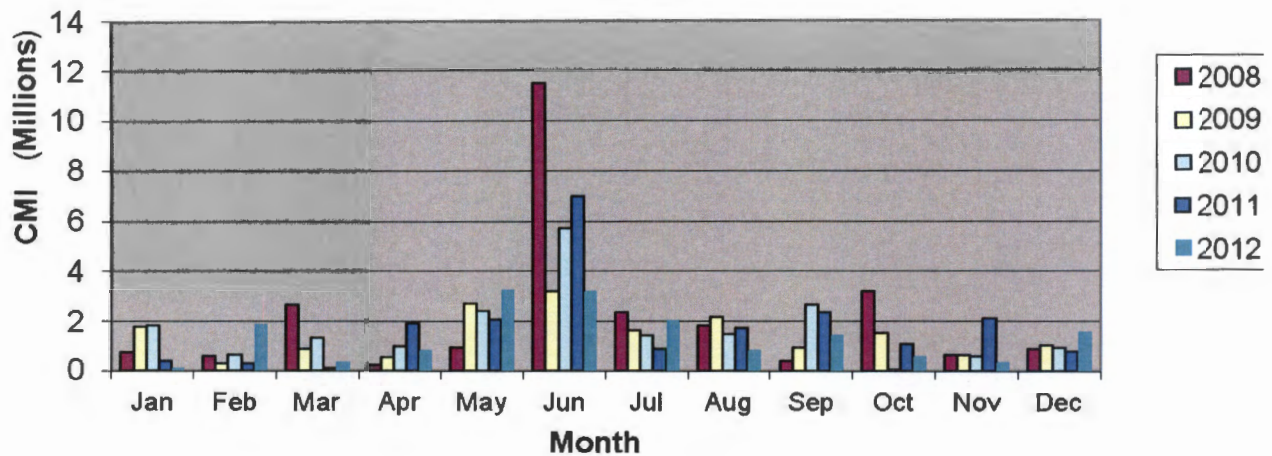


Fig.4 PEF CMI per month (2008-2012)

**b. Describe Company efforts to track the reliability of distribution substations.**

*Progress Energy Florida has an in-house database, Transmission Outage Management System (TOMS), which is used to keep track and record all the events that occur every day. It maintains all the indices mentioned above updated.*

**c. Describe the process used by your Company to identify and select the actions to promote substation reliability.**

*To identify and promote substation reliability, PEF uses different methods, such as monthly substation inspections, predictive and preventive maintenance, infra-red analysis, and numerous diagnostics tests. Once a problem is identified, another tool (Cascade) is used to track the efforts to correct it.*

**d. Provide the number of distribution substations inspected during normal operations (non-storm related) for 2007, 2008, 2009, 2010, 2011 and 2012.**

*Progress Energy Florida has inspected each of its current 487 substations on a routine basis since 2004 to present. These routine inspections are scheduled and performed monthly.*

~ **SUPPLEMENTAL DISTRIBUTION INFORMATION**

*The next six pages contain the following information:*

- CMI / CI by Operation Center for 2012 (Unadjusted/Adjusted).....Page 32
- CEMI5 by Operation Center for 2012 (Unadjusted ).....Page 33
- CEMI5 by Operation Center for 2012 (Adjusted ).....Page 34
- MAIFle by Operation Center for 2012 (Unadjusted).....Page 35
- MAIFle by Operation Center for 2012 (Adjusted).....Page 36
- SAIDI by Operation Center for 2012 (Unadjusted/Adjusted).....Page 37

2012

	Unadjusted Data		Adjusted Data	
	CMI	CI	CMI	CI
<b>NORTH CENTRAL</b>	<b>40,625,641</b>	<b>546,776</b>	<b>30,003,572</b>	<b>371,770</b>
AOPKA	10,300,338	141,269	7,201,326	79,587
DELAND	8,727,059	127,812	6,505,372	80,551
JAMESTOWN	11,142,576	144,487	8,513,539	114,163
LONGWOOD	10,455,668	133,208	7,783,335	97,469
<b>NORTH COASTAL</b>	<b>66,408,992</b>	<b>479,578</b>	<b>26,202,625</b>	<b>286,381</b>
INVERNESS	14,417,912	149,362	8,717,652	96,020
MONTICELLO	36,289,166	163,991	7,768,691	84,631
OCALA	15,701,914	166,225	9,716,282	105,730
<b>SOUTH CENTRAL</b>	<b>34,638,700</b>	<b>510,977</b>	<b>26,966,653</b>	<b>342,906</b>
BUENA VISTA	6,407,320	85,229	5,465,255	61,195
CLERMONT	1,809,223	30,569	1,374,213	20,656
HIGHLANDS	5,073,219	84,959	3,802,715	53,070
LAKE WALES	6,501,830	97,577	4,916,516	58,893
SE ORLANDO	8,961,382	132,933	6,915,495	88,402
WINTER GARDEN	5,885,726	79,710	4,492,459	60,690
<b>SOUTH COASTAL</b>	<b>94,244,885</b>	<b>1,043,695</b>	<b>38,052,919</b>	<b>576,478</b>
CLEARWATER	17,461,232	243,351	10,296,961	151,482
SEVEN SPRINGS	24,206,699	286,445	10,627,131	164,629
ST. PETERSBURG	27,344,285	276,268	9,180,180	141,954
WALSINGHAM	23,833,398	217,105	6,883,451	100,582
ZEPHYRHILLS	1,399,271	20,526	1,065,196	17,831
<b>Grand Total</b>	<b>235,918,218</b>	<b>2,581,026</b>	<b>121,225,769</b>	<b>1,577,535</b>



# CEMI5 Unadjusted Report - 2012

INTERRUPT	1	2	3	4	5	6	7	8	9 10 +	Cust >5	CEMI >5
<b>NORTH COASTAL</b>											
Inverness	18311	11265	8375	5019	2512	1342	1240	577	293	1366	4,818 <b>6.89%</b>
Monticello	9577	6816	5844	3620	2610	3554	2483	1311	1067	2084	10,499 <b>22.52%</b>
Ocala	17435	11018	7469	5023	4217	2710	1896	959	539	1045	7,149 <b>9.35%</b>
<b>NORTH COA</b>	<b>45323</b>	<b>29099</b>	<b>21688</b>	<b>13662</b>	<b>9339</b>	<b>7606</b>	<b>5619</b>	<b>2847</b>	<b>1899</b>	<b>4495</b>	<b>22,466 11.64%</b>
<b>SOUTH COASTAL</b>											
Clearwater	38338	28382	18444	8614	3585	1300	787	109	38	36	2,270 <b>1.51%</b>
Seven Springs	48768	35277	19270	8716	4824	2248	1218	654	191	207	4,518 <b>2.70%</b>
St. Petersburg	38006	38430	17710	8768	4704	2225	560	436	55	25	3,301 <b>2.04%</b>
Walsingham	54664	27256	11979	6154	3608	1080	303	193	49	55	1,680 <b>1.15%</b>
Zephyrhills	7564	4025	910	224	82	9	3	0	0	0	12 <b>0.05%</b>
<b>SOUTH COA</b>	<b>18734</b>	<b>133370</b>	<b>68313</b>	<b>32476</b>	<b>16803</b>	<b>6862</b>	<b>2871</b>	<b>1392</b>	<b>333</b>	<b>323</b>	<b>11,781 1.81%</b>
<b>NORTH CENTRAL</b>											
Apopka	28553	20642	9133	4285	1866	889	439	116	151	35	1,630 <b>1.73%</b>
Deland	18624	13573	9250	5748	2349	1158	520	217	37	104	2,036 <b>2.69%</b>
Jamestown	47231	19376	9989	2986	1129	326	61	18	26	7	438 <b>0.35%</b>
Longwood	22653	17904	7086	3662	2117	902	1081	788	95	14	2,880 <b>3.50%</b>
<b>NORTH CEN</b>	<b>11706</b>	<b>71495</b>	<b>35458</b>	<b>16681</b>	<b>7461</b>	<b>3275</b>	<b>2101</b>	<b>1139</b>	<b>309</b>	<b>160</b>	<b>6,984 1.85%</b>
<b>SOUTH CENTRAL</b>											
Buena Vista	32279	10046	6350	2193	339	47	5	2	1	0	55 <b>0.06%</b>
Clermont	10163	2943	1155	1077	373	263	158	30	8	13	472 <b>1.64%</b>
Highlands	17268	14698	5641	2262	1329	207	14	35	4	3	263 <b>0.47%</b>
Lake Wales	20581	15590	7616	2423	1058	245	147	26	6	3	427 <b>0.47%</b>
SE Orlando	22856	13255	7027	4288	2203	1445	634	304	300	675	3,358 <b>4.09%</b>
Winter Garder	25118	10125	3790	1216	402	140	283	538	201	93	1,255 <b>1.75%</b>
<b>SOUTH CEN</b>	<b>12826</b>	<b>66657</b>	<b>31579</b>	<b>13459</b>	<b>5704</b>	<b>2347</b>	<b>1241</b>	<b>935</b>	<b>520</b>	<b>787</b>	<b>5,830 1.36%</b>
<b>System</b>	<b>477989</b>	<b>300621</b>	<b>157038</b>	<b>76278</b>	<b>39307</b>	<b>20090</b>	<b>11832</b>	<b>6313</b>	<b>3061</b>	<b>5765</b>	<b>47,061 2.85%</b>



**CEMIS Adjusted Report - 2012**

INTERRUPTION	1	2	3	4	5	6	7	8	9 10 +	Cust >5	CEMI >5
<b>NORTH COASTAL</b>											
Inverness	18800	13409	5686	2601	1499	595	818	118	67	22	1,620 <b>2.32%</b>
Monticello	13613	8753	4139	3081	1884	951	516	241	134	289	2,131 <b>4.57%</b>
Ocala	21547	9969	5387	3174	2409	1522	850	282	168	97	2,919 <b>3.82%</b>
<b>NORTH Coastal</b>	<b>53960</b>	<b>32131</b>	<b>15212</b>	<b>8856</b>	<b>5792</b>	<b>3068</b>	<b>2184</b>	<b>641</b>	<b>369</b>	<b>408</b>	<b>6,670 3.46%</b>
<b>SOUTH COASTAL</b>											
Clearwater	53730	22343	7443	2482	1045	582	222	20	5	12	841 <b>0.56%</b>
Seven Springs	53492	24790	12240	2690	722	439	372	124	1	0	936 <b>0.56%</b>
St. Petersburg	43867	28821	6916	2001	705	291	56	7	0	0	354 <b>0.22%</b>
Walsingham	43510	14008	6301	1248	316	42	8	0	21	4	75 <b>0.05%</b>
Zephyrhills	7649	3433	742	89	63	3	0	0	0	0	3 <b>0.01%</b>
<b>SOUTH COASTAL</b>	<b>20224</b>	<b>93395</b>	<b>33642</b>	<b>8510</b>	<b>2851</b>	<b>1357</b>	<b>658</b>	<b>151</b>	<b>27</b>	<b>16</b>	<b>2,209 0.34%</b>
<b>NORTH CENTRAL</b>											
Apopka	26756	12981	4072	1752	533	283	125	65	0	1	474 <b>0.50%</b>
Deland	16194	11196	7225	2168	999	319	200	38	63	24	644 <b>0.85%</b>
Jamestown	46475	17636	6118	1909	410	118	30	9	39	0	196 <b>0.16%</b>
Longwood	26698	12352	5127	2253	1248	330	769	659	7	4	1,769 <b>2.15%</b>
<b>NORTH CENTRAL</b>	<b>11612</b>	<b>54165</b>	<b>22542</b>	<b>8082</b>	<b>3190</b>	<b>1050</b>	<b>1124</b>	<b>771</b>	<b>109</b>	<b>29</b>	<b>3,083 0.82%</b>
<b>SOUTH CENTRAL</b>											
Buena Vista	26501	7689	5162	648	48	2	1	0	0	0	3 <b>0.00%</b>
Clermont	8350	1680	738	570	411	96	104	31	3	12	246 <b>0.85%</b>
Highlands	21072	8664	2436	736	540	41	27	3	1	1	73 <b>0.13%</b>
Lake Wales	25134	9702	2550	834	237	69	23	8	0	2	102 <b>0.11%</b>
SE Orlando	22109	13658	4535	1540	1642	713	321	189	36	4	1,263 <b>1.54%</b>
Winter Garden	27281	7593	1948	863	845	289	91	30	2	3	415 <b>0.58%</b>
<b>SOUTH CENTRAL</b>	<b>13044</b>	<b>48986</b>	<b>17369</b>	<b>5191</b>	<b>3723</b>	<b>1210</b>	<b>567</b>	<b>261</b>	<b>42</b>	<b>22</b>	<b>2,102 0.49%</b>
<b>System</b>	<b>502778</b>	<b>228677</b>	<b>88765</b>	<b>30639</b>	<b>15556</b>	<b>6685</b>	<b>4533</b>	<b>1824</b>	<b>547</b>	<b>475</b>	<b>14,064 0.85%</b>





## MAIFIE - Unadjusted (01/01/2012 - 12/31/2012)

	<u>Customers</u>	<u># momentary</u>		
	<u>Served</u>	<u>events</u>	<u>CME</u>	<u>MAIFIE</u>
<b>NORTH COASTAL</b>				
Inverness	69,953	571	754,583	10.8
Monticello	46,617	494	426,080	9.1
Ocala	76,479	432	546,173	7.1
<b>NORTH COASTAL</b>	<b>193,049</b>	<b>1,497</b>	<b>1,726,836</b>	<b>8.9</b>
<b>SOUTH COASTAL</b>				
Clearwater	150,825	890	1,703,470	11.3
Seven Springs	167,312	888	1,685,499	10.1
St. Petersburg	161,696	922	1,740,744	10.8
Walsingham	146,612	812	1,457,709	9.9
Zephyrhills	24,506	127	254,290	10.4
<b>SOUTH COASTAL</b>	<b>650,951</b>	<b>3,639</b>	<b>6,841,712</b>	<b>10.5</b>
<b>NORTH CENTRAL</b>				
Apopka	94,012	904	1,151,031	12.2
Deland	75,786	433	686,382	9.1
Jamestown	126,024	654	1,069,658	8.5
Longwood	82,376	696	824,841	10
<b>NORTH CENTRAL</b>	<b>378,198</b>	<b>2,687</b>	<b>3,731,912</b>	<b>9.9</b>
<b>SOUTH CENTRAL</b>				
Buena Vista	98,992	515	521,898	5.3
Clermont	28,817	186	257,703	8.9
Highlands	55,712	442	529,025	9.5
Lake Wales	91,674	640	847,108	9.2
SE Orlando	82,149	399	508,579	6.2
Winter Garden	71,547	473	672,886	9.4
<b>SOUTH CENTRAL</b>	<b>428,891</b>	<b>2,655</b>	<b>3,337,199</b>	<b>7.8</b>
<b>System</b>	<b>1,651,089</b>	<b>10,478</b>	<b>15,637,659</b>	<b>9.5</b>



## MAIFIE - Adjusted (01/01/2012 - 12/31/2012)

	<u>Customers</u>	<u># momentary</u>		
	<u>Served</u>	<u>events</u>	<u>CME</u>	<u>MAIFIE</u>
<b>NORTH COASTAL</b>				
Inverness	69,953	562	743,411	<b>10.6</b>
Monticello	46,617	488	421,555	<b>9</b>
Ocala	76,479	425	533,752	<b>7</b>
<b>NORTH COASTA</b>	<b>193,049</b>	<b>1,475</b>	<b>1,698,718</b>	<b>8.8</b>
<b>SOUTH COASTAL</b>				
Clearwater	150,825	875	1,674,609	<b>11.1</b>
Seven Springs	167,312	876	1,660,440	<b>9.9</b>
St. Petersburg	161,696	905	1,700,457	<b>10.5</b>
Walsingham	146,612	786	1,407,828	<b>9.6</b>
Zephyrhills	24,506	124	245,054	<b>10</b>
<b>SOUTH COASTA</b>	<b>650,951</b>	<b>3,566</b>	<b>6,688,388</b>	<b>10.3</b>
<b>NORTH CENTRAL</b>				
Apopka	94,012	874	1,111,825	<b>11.8</b>
Deland	75,786	424	670,387	<b>8.8</b>
Jamestown	126,024	639	1,043,046	<b>8.3</b>
Longwood	82,376	689	816,771	<b>9.9</b>
<b>NORTH CENTRA</b>	<b>378,198</b>	<b>2,626</b>	<b>3,642,029</b>	<b>9.6</b>
<b>SOUTH CENTRAL</b>				
Buena Vista	98,992	505	511,814	<b>5.2</b>
Clermont	28,817	182	252,841	<b>8.8</b>
Highlands	55,712	432	512,964	<b>9.2</b>
Lake Wales	91,674	632	837,430	<b>9.1</b>
SE Orlando	82,149	379	489,188	<b>6</b>
Winter Garden	71,547	459	652,303	<b>9.1</b>
<b>SOUTH CENTRA</b>	<b>428,891</b>	<b>2,589</b>	<b>3,256,540</b>	<b>7.6</b>
<b><u>System</u></b>	<b><u>1,651,089</u></b>	<b><u>10,256</u></b>	<b><u>15,285,675</u></b>	<b><u>9.3</u></b>



SYSTEM RELIABILITY INDICES – ABSENT ADJUSTMENTS		
Utility Name: Progress Energy Florida		
2012		
Region	Operation Center	SAIDI
NORTH COASTAL		344.0
	Inverness	206.1
	Monticello	778.5
	Ocala	205.3
SOUTH COASTAL		144.8
	Clearwater	115.8
	Seven Springs	144.7
	St. Petersburg	169.1
	Walsingham	162.6
	Zephyrhills	57.1
NORTH CENTRAL		107.4
	Apopka	109.6
	Deland	115.2
	Jamestown	88.4
	Longwood	126.9
SOUTH CENTRAL		80.8
	Buena Vista	64.7
	Clermont	62.8
	Highlands	91.1
	Lake Wales	70.9
	SE Orlando	109.1
	Winter Garden	82.3
SYSTEM		142.9

Note: SAIDI indices are the contribution to the system level.

SYSTEM RELIABILITY INDICES – ADJUSTED		
Utility Name: Progress Energy Florida		
2012		
Region	Operation Center	SAIDI
NORTH COASTAL		135.7
	Inverness	124.6
	Monticello	166.6
	Ocala	127.0
SOUTH COASTAL		58.5
	Clearwater	68.3
	Seven Springs	63.5
	St. Petersburg	56.8
	Walsingham	47.0
	Zephyrhills	43.5
NORTH CENTRAL		79.3
	Apopka	76.6
	Deland	85.8
	Jamestown	67.6
	Longwood	94.5
SOUTH CENTRAL		62.9
	Buena Vista	55.2
	Clermont	47.7
	Highlands	68.3
	Lake Wales	53.6
	SE Orlando	84.2
	Winter Garden	62.8
SYSTEM		73.4

Note: SAIDI indices are the contribution to the system level.

## RELIABILITY RELATED CUSTOMER COMPLAINTS

Please see "Attachment H" for PEF's spreadsheet comparing PEF vs. PSC 2012 reliability-related complaints.

### a. Describe the five year patterns/trends in reliability-related customer complaints.

Progress Energy Florida receives its customer complaints from the FPSC via a variety of methods (Formal Complaints, Courtesy Calls, Internet Transfers). The 5-year trend is shown below with PEF reliability related complaint data:

FPSC Formal (15 day/logged) complaints					
Complaint Category	Yr End Total				
	2008	2009	2010	2011	2012
Outages - Momentary	14	21	24	18	10
Outages - Frequent	62	35	46	21	29
Outages - Delay in Restoring	7	7	4	12	2
Voltage	3	9	2	4	0
Equipment/Facilities	13	15	7	12	9
Tree Trimming	9	11	10	11	8
Safety	9	1	2	1	0
<b>Total</b>	<b>117</b>	<b>99</b>	<b>95</b>	<b>79</b>	<b>58 *</b>

\* This number excludes complaints regarding street lights. The number shown on "Attachment H" indicates 63 complaints which include those street light complaints.

In 2012, the Florida Public Service Commission (FPSC) logged 102 complaints using a service reliability closure code. Of the 102 complaints logged by the FPSC, 48 were not related to the service reliability category based on Progress Energy Florida's (PEF) records. Please see Attachment H for more details.

PEF logged 63 complaints under Power Quality & Reliability. Of the 63, 9 complaints were not logged by the FPSC under Service Reliability Only Closure Code.

Of the 63 PEF logged complaints, 5 were identified under the Street Lights/Area Lights-Repair category. The FPSC does not include "Street Lights" as a category under Service Reliability, therefore, PEF removed these 5 complaints from the 63 complaints for reporting purposes to the FPSC resulting in a total of 58 logged complaints. Please see the chart above, as well as Attachment H for more details.

In 2012, the number of FPSC formal reliability-related complaints decreased for the fourth year in a row and were the lowest they have been in 5 years.

- b. Describe Company efforts to correlate reliability-related complaints with reliability indices for applicable feeder, lateral and subregion.**

*Reliability complaints are typically driven by localized delivery system performance. The most effective remedy is surgical corrective action based on patrol/survey of a discrete segment in conjunction with analysis of outage cause(s) and duration. Corrective action scope is typically increased when appropriate to ensure maximum impact on established reliability indices such as SAIDI, MAIFLe, CEMI4, and CELID3.*

- c. Describe the process used by your company to identify and select systematic actions to improve reliability due to customer complaints (if no such program exists explain why).**

*Systematic corrective actions are prioritized based on expected improvement to established reliability indices such as SAIDI, MAIFLe, CEMI4, and CELID3. Reliability complaints are typically driven by localized delivery system performance. The most effective remedy is surgical corrective action based on patrol/survey of a discrete segment in conjunction with analysis of outage cause(s) and duration. Corrective actions are compared to the reliability work plan to ensure no unnecessary duplication of effort.*



## II. STORM HARDENED FACILITIES

Pursuant to the Stipulation regarding the “Process within the Process” entered into and filed jointly by the third-party attachers and IOU’s with the FPSC on September 26, 2007, paragraph 7 requires each electric utility to file by March 1 each year a status report of its implementation of its storm hardening plan. Please see *Attachment I - “Spreadsheet of Storm Hardening Project Status”*.

PEF continues to maintain an open line of communication with third-party attachers pertaining to storm hardening projects in PEF’s territory.

### a. Describe each storm hardening activity undertaken in the field during 2012.

#### Distribution

*In addition to the activities identified in PEF’s Storm Hardening Plan (Attachment J), Wood Pole Inspection Plan (Attachment K), and other initiatives identified and discussed herein, Progress Energy Florida Distribution undertook the following specific activities that deliver a storm hardening benefit during 2012:*

#### Existing Overhead to Underground Conversion:

*See Attachment L - “Major Conversions Historical Data”.*

#### New Construction Cable footage installed underground:

*In 2012, PEF installed 145 circuit miles of new underground cable. Overall, the PEF distribution system consists of 41.7%% primary underground circuit miles (12,980 circuit miles).*

#### Network Maintenance and Replacement:

*2012 Actuals - \$900k*

*Switchgear Replacement – 2012 Actuals - \$1.4M*

#### Midfeeder Electronic Sectionalizing (Reclosers):

*2012 Actuals - \$570k*

#### Wood Pole Inspection and Treatment:

*2012 Actuals - \$2.6M*

#### Wood Pole Replacement:

*2012 Actuals - \$12.7M*

#### Padmount Transformer Replacement:

*2012 Actuals - \$10.9M*

#### Storm Hardening Pilot Projects

*2012 Actuals - \$4.7M*

## **Transmission**

*In addition to the activities identified in PEF's Storm Hardening Plan (Attachment J), Wood Pole Inspection Plan (Attachment K), and other initiatives identified and discussed herein, Progress Energy Florida Transmission undertook the following specific Storm Hardening Activities during 2012:*

### **Maintenance Change outs:**

*Progress Energy Florida Transmission is installing either steel or concrete poles when replacing existing wood poles. This activity resulted in the replacement of 1,080 wood poles with steel or concrete during 2012.*

### **DOT/Customer Relocations and Line Upgrades and Additions:**

*Progress Energy Florida Transmission will design any DOT or Customer Requested Relocations and any line upgrades or additions to meet or exceed the current NESC Code Requirements and will construct these projects with either steel or concrete poles. This activity resulted in replacement of approximately 857 poles with steel or concrete during 2012.*

*Note: In Attachment O, it is reported that 803 wood poles were replaced. The difference is due to the timing of database updates. The numbers above reflect the actual field work completed.*

- b. Describe the process used by your company to identify the location and select the scope of storm hardening projects.**

## **Distribution**

*The location and scope of projects that deliver hardening benefits varies by type of construction, maintenance, or replacement activity. Primary factors considered include operational and storm performance, remaining life, condition assessment of equipment as determined by inspection, and cost to repair or replace. In all cases, the cost to install, maintain, or replace equipment is balanced against the expected long term operational and cost benefit.*

*For additional information, please see Attachment J - PEF's Storm Hardening Plan.*

## **Transmission**

### **Maintenance Change outs**

*Poles that require change out are identified by Procedure MNT-TRMX-00053, "Ground Patrols" (Attachment M). The change out schedule is determined by the condition of the wood pole based upon inspector experience.*

### **DOT/Customer Relocations**

*Poles that are changed out and upgraded are identified by requests from DOT or customers.*

### **Line Upgrades and Additions**

*Progress Energy Florida Transmission Planning will determine where and when lines need to be upgraded.*

*For additional information, please see Attachment J - PEF's Storm Hardening Plan.*

**c. Provide the costs incurred and any quantified expected benefits.**

**Distribution**

*See Subsection (a) above.*

**Transmission**

**Line Maintenance Change outs**

*Progress Energy Florida Transmission spent approximately \$15,723,729 for Capital Improvements in 2012. Capital Improvements includes pole change outs and complete insulator replacements.*

*Quantified benefits will be a stronger and more consistent material supporting Transmission Circuits. Over the next 10 years, the percentage of wood poles on Progress Energy Florida's Transmission system should reduce wood poles on the system from approximately 75% today to 50%.*

**DOT/Customer Relocations and Line Upgrades and Additions**

*Progress Energy Florida Transmission spent approximately \$90,771,847 for DOT/Customer Relocations and Line Upgrades and Additions in 2012.*

*Quantified benefits will be a stronger and more consistent material supporting Transmission Circuits. Over the next 10 years, the percentage of wood poles on Progress Energy's Transmission system should reduce wood poles on the system from approximately 75% today to 50%.*

**d. Discuss any 2013 projected activities and budget levels.**

**Distribution**

*Progress Energy Florida Distribution's storm hardening strategy and activities for 2013 are still ongoing and under development. At this time, however, Progress Energy Distribution reports as follows:*

**Existing Overhead to Underground Conversion:**

*Major Underground Conversions are a customer driven activity based upon a willingness to pay the conversion costs. While specific annual totals are difficult to forecast, the trend indicated by Attachment L, "Major Conversions Historical Data" over the last 10 years is expected to continue.*

**New Construction Cable footage installed underground:**

*The specific span miles of new underground cable installed is driven by the level of new connect activity. While the number of span miles installed varies from year to year, the*

percentage of new primary distribution span miles installed underground is expected to continue.

Network Maintenance and Replacement:

2013 Projections - \$600k

Livefront Switchgear Replacement – 2013 Projections - \$300k

Wood Pole Inspection and Treatment:

2013 Projections - \$1.6M

Wood Pole Replacement:

2013 Projections - \$14.2M

Padmount Transformer Replacement:

2013 Projections - \$10.3M

Storm Hardening Pilot Projects

2013 Projections - \$5.9M

**Transmission**

Progress Energy Florida Transmission's storm hardening strategy and activities for 2013 are still ongoing and under development. At this time, however, Progress Energy Transmission reports as follows:

Line Maintenance Change outs

Progress Energy Florida Transmission should replace approximately 700 poles in 2013.

Capital Budget for Line Maintenance is \$13,885,669 for 2013 which includes pole change outs, insulator replacements and any overhead ground wire (OHGW) replacements.

DOT/Customer Relocations and Line Upgrades and Additions

Progress Energy Florida Transmission should replace approximately 890 poles in 2013.

Current identified DOT/Customer Relocation Projects and Line Upgrades and Additions has a capital budget of \$95 million.



## **II. STORM SEASON READINESS**

### **a. Describe the efforts the Company is taking to be storm-ready by June 1, 2013**

Please see *Attachment N* – PEF’s May 9, 2012 FPSC Presentation “Storm Season Readiness”. On May 15, 2013, PEF will participate before the FPSC to discuss the efforts the Company is taking to be “storm-ready” for 2013.

#### *Distribution*

*PEF’s Distribution Storm Plan has been reviewed and revised as of June 2012 (See Attachment Y). The Distribution organization will conduct a storm readiness drill in April of 2013. By the start of storm season, all feeder backbones will be surveyed for tree conditions and corrective work completed. System reliability is continually monitored and upgraded through our storm hardening efforts. Critical restoration material and fuel will be ready and available from multiple sources, and we have taken steps to ensure that outside line and tree trimming resources are ready and available.*

#### *Transmission*

*PEF’s Transmission Storm Plan has been reviewed and revised as of February 11, 2013 (Attachment Z). The Transmission Department conducted a storm readiness drill during the week of April 23, 2012. Transmission will conduct its 2013 storm drill in conjunction with Distribution. Also, aerial patrols for PEF’s entire transmission system took place between March-June and September-December, 2012. The next aerial patrols are scheduled between March-June and September-December, 2013.*

#### **IV. WOOD POLE INSPECTION PROGRAM**

**a. Provide a detailed description of the Company's wood pole inspection program.**

*PEF's wood pole inspection program philosophy is to determine the condition of the wood pole plant and provide remediation for any wood poles that are showing signs of decay or fall below the minimum strength requirements outlined by NESC standards.*

*PEF is utilizing the expertise of Utility Pole Technologies, Inc. ("UPT"), a division of Asplundh, to perform the inspections on an eight year cycle. UPT is using visual inspection, sound and boring, and full excavation down to 18 inches below ground line to determine the condition of all poles with the exception of CCA poles less than 16 years of age. For CCA poles less than 16 years of age, UPT is using visual inspection and sound, as well as, selective boring to determine the pole condition. In addition, UPT is providing remediation of decayed poles through external and internal treatments. If the pole is below NESC standards and has the minimum remaining wood above ground line, UPT will also reinforce the pole back to original strength.*

*For additional information, please see Attachment K - "Wood Pole Inspection Plan". Pursuant to FPSC Order No. PSC-06-0144-PAA-EI, FAC, PEF filed its updated Wood Pole Inspection Plan on April 1, 2012.*

**b. 2012 accomplishments**

*Distribution*

*PEF inspected 91,306 wood poles that for the 2012 inspection. This total will keep us on target to meet an 8 year pole inspection cycle. In addition to the inspections, GPS coordinates and physical attributes were updated and/or verified and inspection results were collected in a central database on all poles inspected.*

*Transmission*

*In 2012, PEF Transmission ground patrol inspected 13,914 wood pole structures. This represents approximately 47% of the wood pole structures on the PEF Transmission system.*

**c. Projected accomplishments for 2013**

*Distribution*

*Among other things, PEF's goal for 2013 is to inspect at least 96,000 wood poles throughout the PEF territory and to continue verifying and updating GPS coordinates, inspection results, and physical attributes for all poles inspected. Progress Energy will continue to utilize the same inspection procedures in 2013 that we have in the past. In the last weeks of 2012, Osmose Utilities Services, Inc. purchased Utility Pole Technologies from Asplundh. We anticipate a smooth transition back to Osmose with this acquisition.*

### Transmission

*Current plans are to inspect approximately 1/3 to 1/5 of the system, which equates to approximately 1,000 miles of Transmission Circuits (or approximately 7,500 wood structures). We will have a 3rd party contract crew complete ground line sound and bore inspections for approximately 7,500 wood poles. We also will aerial patrol the entire transmission system two (2) times during 2013. We will perform a ground inspection on all lines 200kv and higher. These patrols will begin in March 2013.*

#### **d. Wood pole inspection reports.**

Each wood pole inspection report contains the following:

- A description of the methods used for structural analysis and pole inspection,
- A description of the selection criteria that was used to determine which poles would be inspected, and
- A summary report of the inspection data.

### Distribution

*Please see Attachment O - 2012 Annual Wood Pole Inspection Report filed with the FPSC on March 1, 2013.*

*For a description of the methods used for structural analysis and pole inspection – please refer to Attachment K - “Wood Pole Inspection Plan”, pages 1 - 4 and 6 - 8.*

*For the summary report of the inspection data - See Attachment P - CD Rom containing Excel file - “2012 Distribution Pole Inspection Data”.*

### Transmission

*Please see Attachment O - 2012 Annual Wood Pole Inspection Report filed with the FPSC on March 1, 2013.*

*For a description of the methods used for structural analysis and pole inspection – please refer to Attachment K - “Wood Pole Inspection Plan”, pages 1 - 4 and 6 - 8.*

*For the summary report of the inspection data – See Attachment Q – CD containing Excel files - “2012 Pole Data” and “2012 Structure Data”.*

### **CCA Pole Sampling Report**

Pursuant to Order No. PSC-08-0615-PAA-EI issued September 23, 2008 in Docket No. 080219-EI, the Commission approved modification to the sounding and boring excavation requirements of Order No. 06-0144-PAA-EI with regard to CCA wood poles less than 16 years old. On Pages 3 and 4 of Order No. PSC-08-0615-PAA-EI, it states,

*“ORDERED that, consistent with the deviation granted to Gulf Power Company in Order No. PSC-07-0078-PAA-EU, Progress Energy Florida, Inc., Florida Power & Light Company, and Tampa Electric Company shall be required to sound and selectively bore all CCA poles under the age of 16 years, but shall not be required to perform full excavation on these poles. It is further*

*ORDERED that Progress Energy Florida, Inc., Florida Power & Light Company, and Tampa Electric Company shall also be required to perform full excavation sampling to validate their inspection method. It is further*

*ORDERED that the results of the utilities’ sampling shall be filed in their annual distribution reliability reports.”*

### **2012 CCA Pole Sampling Results**

*Please see Attachment O – PEF’s 2012 Annual Wood Pole Inspection Report filed with the FPSC on March 1, 2013. The “CCA Sampling Results for 2012” is included in PEF’s Wood Pole Inspection Report as “Attachment B”.*



## **V. EIW INITIATIVES**

### **VEGETATION MANAGEMENT – THREE YEAR CYCLE (*Initiative 1*)**

- a. **Provide a complete description of the Company's vegetation management program (policies, guidelines, practices) for 2012 and 2013 in terms of both activity and costs.**
  - *See Attachment R - "PEF's Storm Preparedness Plan".*
  - *See Attachment S - "Internal Policy & Guidelines".*
  - *For activities and costs - See information herein on pages 49 - 52.*
- b. **Describe tree clearing practices in utility easements and authorized rights-of-ways.**

*See Attachment S - "Internal Policy & Guidelines".*
- c. **Identify relevant portions of utility tariffs pertaining to utility vegetation management activities within easements and authorized rights-of-ways.**

*PEF's tariffs do not contain specific language pertaining to utility vegetation management activities within easements and authorized rights-of-ways.*
- d. **Describe tree removal practices for trees that abut and/or intrude into easements and authorized rights-of-ways.**

*See Attachment S - "Internal Policy & Guidelines".*
- e. **Describe tree clearing practices outside of utility easements and authorized rights-of-ways.**

*See Attachment S - "Internal Policy & Guidelines".*
- f. **Identify relevant portions of utility tariffs pertaining to utility vegetation management activities outside of easements and authorized rights-of-ways.**

*PEF's tariffs do not contain specific language pertaining to utility vegetation management activities outside of easements and authorized rights-of-ways.*
- g. **Describe tree removal practices for trees outside of easements and authorized rights-of-ways.**

*See Attachment S - "Internal Policy & Guidelines".*
- h. **Identify relevant portions of utility tariffs pertaining to customer vegetation management obligations as a term or condition of electric service.**

*There is no specific language in PEF's tariffs that pertain to customer vegetation management obligations as a term or condition of electric service. However, in Section 4 of PEF's tariff book, Sheets 4.11 and 4.123, reference is made to a customer's responsibility regarding vegetation management.*

i. **Describe Company practices regarding customer trim requests.**

*When a customer calls into the call center, either a tree work ticket is generated or a Progress Energy Florida field resource will submit a ticket using the work management system. For the remaining process, please see Attachment T - "Vegetation Management – Customer Demand Tree Trimming Requests".*

j. **Describe the criteria used to determine whether to remove a tree, replace a tree, spot-trim, demand trim, or mid-cycle trim, etc.**

*The criteria used is comprised of a number of considerations, i.e., location, customers on the line, removal vs. trim candidate, species, customer permission, easement rights and risk. Apart from identifying these factors, as a general matter, PEF cannot elaborate as to how these factors may apply in a given factual circumstance.*

k. **Discuss any 2013 projected activities and budget levels.**

*See charts below.*

**SYSTEM VEGETATION MANAGEMENT PERFORMANCE METRICS**

	Feeders			Laterals		
	Unadjusted*	Adjusted	Diff.	Unadjusted*	Adjusted	Diff.
(A) Number of Outages	N/A *	176	N/A *	N/A *	7,491	N/A *
(B) Customer Interruptions	N/A *	240,316	N/A *	N/A *	226,249	N/A *
(C) Miles Cleared	N/A *	196	N/A *	N/A *	3,214	N/A *
(D) Remaining Miles	N/A *	0	N/A *	N/A *	991	N/A *
(E) Outages per Mile $[A \div (C + D)]$	N/A *	0.89	N/A *	N/A *	3.37	N/A *
(F) Vegetation CI per Mile $[B \div (C + D)]$	N/A *	1,218.33	N/A *	N/A *	101.76	N/A *
(G) Number of Hotspot trims	N/A *	11,259	N/A *	N/A *	45,038	N/A *
(H) All Vegetation Management Costs	N/A *	\$1,629,559	N/A *	N/A *	\$22,830,060	N/A *
(I) Customer Minutes of Interruption	N/A *	12,511,210	N/A *	N/A *	26,141,792	N/A *
(J) Outage restoration costs	N/A *	***	N/A *	N/A *	***	N/A *
(K) Vegetation Management Budget (current year) – 2012	N/A *	\$1,423,658	N/A *	N/A *	\$25,122,196	N/A *
(L) Vegetation Goal (current year) - 2012	N/A *	195	N/A *	N/A *	4,205	N/A *
(M) Vegetation Management Budget (next year) – 2013	N/A *	\$3,684,126	N/A *	N/A *	\$22,315,874	N/A *
(N) Vegetation Management Goal (next year) – 2013	N/A *	541	N/A *	N/A *	3,465	N/A *
(O) Trim-Back Distance	N/A *	***	N/A *	N/A *	***	N/A *

*Note: Total miles cleared in 2012 was 3,410. Annual variations from target are expected as PEF manages resource and unit cost factors associated with its integrated vegetation management plan. Based on the 3-year feeder / 5-year lateral tree trimming cycle, since 2006 initiation, PEF is at 5% of total 3-year cycle feeder miles and 31% of total 5-year cycle lateral miles. PEF is on target to complete all its tree trimming for both feeder and lateral circuits within the current 3-year and 5-year cycles, respectively.*

- \* There is no unadjusted data on tree caused storm events that would be relevant to PEF's tree trimming program. It would not be reasonably possible to gather this data and furthermore the data would not be accurate if we could obtain it. It would take extraordinary effort and considerable conjecture to estimate the impact of trees on PEF's distribution system for outage causes that are currently coded "storm". It would not be reasonably possible to gather such data because contractors move around the System and operate under a myriad of restoration contracts and agreements. To track this data, it would require the establishment of both a financially based tracking system to monitor costs as well as crew activity system-wide during a catastrophic event. Additionally, it is not practical to perform a forensic analysis of outages during a catastrophic event for the purpose of obtaining the root cause since several agencies assist in the effort as well as the magnitude of damage that impact a localized area of the system. During a storm event, outage tracking migrates from Outage Management System event to a Damage Assessment event. As such, our ability to capture reliable data becomes significantly compromised.
- \*\* This data is actual complete in 2012 and scheduled in 2013.
- \*\*\* Distance varies according to species' growth rates.
- \*\*\*\* This data was not previously tracked. A means of extracting tree outage data from total storm restoration costs is still being investigated.

#### MANAGEMENT REGION (NORTH CENTRAL) VEGETATION MANAGEMENT PERFORMANCE METRICS

	Feeders			Laterals		
	Unadjusted*	Adjusted	Diff.	Unadjusted*	Adjusted	Diff.
(A) Number of Outages	N/A *	51	N/A *	N/A *	1,814	N/A *
(B) Customer Interruptions	N/A *	72,822	N/A *	N/A *	55,314	N/A *
(C) Miles Cleared	N/A *	64	N/A *	N/A *	635	N/A *
(D) Remaining Miles	N/A *	11	N/A *	N/A *	257	N/A *
(E) Outages per Mile [A ÷ (C + D)]	N/A *	0.95	N/A *	N/A *	4.80	N/A *
(F) Vegetation CI per Mile [B ÷ (C + D)]	N/A *	1,362.18	N/A *	N/A *	146.32	N/A *
(G) Number of Hotspot trims	N/A *	3,528	N/A *	N/A *	14,112	N/A *
(H) All Vegetation Management Costs	N/A *	\$603,988	N/A *	N/A *	\$5,965,820	N/A *
(I) Customer Minutes of Interruption	N/A *	3,876,504	N/A *	N/A *	7,600,114	N/A *
(J) Outage restoration costs	N/A *	***	N/A *	N/A *	***	N/A *
(K) Vegetation Budget (current year) – 2012	N/A *	\$587,861	N/A *	N/A *	\$7,034,540	N/A *
(L) Vegetation Goal (current year) – 2012	N/A *	74.54	N/A *	N/A *	891.97	N/A *
(M) Vegetation Budget (2013)	N/A *	\$1,184,888	N/A *	N/A *	\$6,182,584	N/A *
(N) Vegetation Management Goal (next year) - 2013	N/A *	136	N/A *	N/A *	707	N/A *
(O) Trim-Back Distance	N/A *	***	N/A *	N/A *	***	N/A *



**MANAGEMENT REGION (SOUTH CENTRAL) VEGETATION MANAGEMENT PERFORMANCE METRICS**

	Feeders			Laterals		
	Unadjusted*	Adjusted	Diff.	Unadjusted*	Adjusted	Diff.
(A) Number of Outages	N/A *	26	N/A *	N/A *	896	N/A *
(B) Customer Interruptions	N/A *	40,710	N/A *	N/A *	25,913	N/A *
(C) Miles Cleared	N/A *	35	N/A *	N/A *	708	N/A *
(D) Remaining Miles	N/A *	6	N/A *	N/A *	195	N/A *
(E) Outages per Mile $[A \div (C + D)]$	N/A *	0.88	N/A *	N/A *	1.75	N/A *
(F) Vegetation CI per Mile $[B \div (C + D)]$	N/A *	1,384.22	N/A *	N/A *	50.54	N/A *
(G) Number of Hotspot trims	N/A *	1,549	N/A *	N/A *	6,194	N/A *
(H) All Vegetation Management Costs	N/A *	\$206,891	N/A *	N/A *	\$4,207,417	N/A *
(I) Customer Minutes of Interruption	N/A *	1,783,981	N/A *	N/A *	3,105,283	N/A *
(J) Outage restoration costs	N/A *	***	N/A *	N/A *	***	N/A *
(K) Vegetation Management Budget (current year) – 2012	N/A *	\$218,095	N/A *	N/A *	\$4,853,652	N/A *
(L) Vegetation Goal (2012)	N/A *	40.59	N/A *	N/A *	903.32	N/A *
(M) Vegetation Management Budget (next year) – 2013	N/A *	\$950,307	N/A *	N/A *	\$4,010,685	N/A *
(N) Vegetation Management Goal (next year) – 2013	N/A *	198	N/A *	N/A *	837	N/A *
(O) Trim-Back Distance	N/A *	***	N/A *	N/A *	***	N/A *

**MANAGEMENT REGION (NORTH COASTAL) VEGETATION MANAGEMENT PERFORMANCE METRICS**

	Feeders			Laterals		
	Unadjusted*	Adjusted	Diff.	Unadjusted*	Adjusted	Diff.
(A) Number of Outages	N/A *	70	N/A *	N/A *	2,592	N/A *
(B) Customer Interruptions	N/A *	68,503	N/A *	N/A *	84,851	N/A *
(C) Miles Cleared	N/A *	42	N/A *	N/A *	1,235	N/A *
(D) Remaining Miles	N/A *	14	N/A *	N/A *	439	N/A *
(E) Outages per Mile $[A \div (C + D)]$	N/A *	1.25	N/A *	N/A *	3.25	N/A *
(F) Vegetation CI per Mile $[B \div (C + D)]$	N/A *	1,222.39	N/A *	N/A *	106.54	N/A *
(G) Number of Hotspot trims	N/A *	3,926	N/A *	N/A *	15,702	N/A *
(H) All Vegetation Management Costs	N/A *	\$179,219	N/A *	N/A *	\$5,272,969	N/A *
(I) Customer Minutes of Interruption	N/A *	4,550,998	N/A *	N/A *	8,980,814	N/A *
(J) Outage restoration costs	N/A *	***	N/A *	N/A *	***	N/A *
(K) Vegetation Budget (current year) – 2012	N/A *	\$97,276	N/A *	N/A *	\$5,822,412	N/A *
(L) Vegetation Goal (2012)	N/A *	28	N/A *	N/A *	1,674	N/A *
(M) Vegetation Budget (2013)	N/A *	\$425,172	N/A *	N/A *	\$5,485,920	N/A *
(N) Vegetation Management Goal (next year) - 2013	N/A *	100	N/A *	N/A *	1,290	N/A *
(O) Trim-Back Distance	N/A *	***	N/A *	N/A *	***	N/A *



## MANAGEMENT REGION (SOUTH COASTAL) VEGETATION MANAGEMENT PERFORMANCE METRICS

	Feeders			Laterals		
	Unadjusted*	Adjusted	Diff.	Unadjusted*	Adjusted	Diff.
(A) Number of Outages	N/A *	29	N/A *	N/A *	2,189	N/A *
(B) Customer Interruptions	N/A *	58,281	N/A *	N/A *	60,171	N/A *
(C) Miles Cleared	N/A *	55	N/A *	N/A *	636	N/A *
(D) Remaining Miles	N/A *	3	N/A *	N/A *	100	N/A *
(E) Outages per Mile $[A \div (C + D)]$	N/A *	0.50	N/A *	N/A *	4.08	N/A *
(F) Vegetation CI per Mile $[B \div (C + D)]$	N/A *	998.99	N/A *	N/A *	112.20	N/A *
(G) Number of Hotspot trims	N/A *	2,257	N/A *	N/A *	9,029	N/A *
(H) All Vegetation Management Costs	N/A *	\$639,461	N/A *	N/A *	\$7,383,854	N/A *
(I) Customer Minutes of Interruption	N/A *	2,299,727	N/A *	N/A *	6,455,581	N/A *
(J) Outage restoration costs	N/A *	***	N/A *	N/A *	***	N/A *
(K) Vegetation Management Budget (current year) – 2012	N/A *	\$520,426	N/A *	N/A *	\$7,411,592	N/A *
(L) Vegetation Management Goal (current year) – 2012	N/A *	52	N/A *	N/A *	736	N/A *
(M) Vegetation Management Budget (next year) – 2013	N/A *	\$1,123,759	N/A *	N/A *	\$6,636,684	N/A *
(N) Vegetation Management Goal (next year) – 2013	N/A *	107.00	N/A *	N/A *	631.00	N/A *
(O) Trim-Back Distance	N/A *	***	N/A *	N/A *	***	N/A *

Local Community Participation: A discussion addressing utility efforts to collect and use input from local communities and governments regarding (a) r-o-w tree clearing, (b) easement tree clearing, (c) hard-to-access facilities, (d) priority trees not within r-o-w or within easements where the utility has unobstructed authority to remove the danger tree, and (e) trim-back distances.

*Please see pages 70-74.*

### Priority Trees

- a) Number of priority trees removed? **1,169**
- b) Expenditures on priority tree removal? **\$237,874** (*includes tree removal, removal trims, overhang & vines*)
- c) Number of request for removals that were denied? **26** (*These trees were on private property. The owners refused a request for removal. The trees were instead trimmed as much as possible within the legal rights that PEF had to do so.*)
- d) Avoided CI with priority trees removed (estimate)? **[See Below]**
- e) Avoided CMI with priority trees removed (estimate)? **[See Below]**

**In response to items d) and e), the determination of the number of customers (CI) that would have been interrupted and/or the extent of an outage (CMI) is dependent upon a number of variables such as: species of tree; tree wind resistance characteristics; age of tree; condition of tree; type of failure – electrical vs. mechanical (limb or stem); location along the feeder; soil conditions, the extent of any disease and/or insect infestation; the type, magnitude and duration**

- of a storm; etc. To quantify or estimate the avoided CI or CMI as a general matter for all possible conditions would require PEF to guess and speculate on conditions for which it has neither reliable nor supporting data. PEF therefore cannot provide data for these fields.

## JOINT-USE POLE ATTACHMENT AUDITS FOR THE YEAR 2012 (Initiative 2)

- a) **Percent of system audited.** *Feeders and Laterals: 100%*
- b) **Date audit conducted?** *A Joint-Use Pole Loading Analysis is conducted every 8 years per FPSC mandates. In 2012, one eighth (1/8) of the joint attachments were audited to fulfill the 8-year requirement.*
- c) **Date of previous audit?** *2011 Partial Joint Use Structural Analysis System Audit.*
- d) **List of audits conducted annually.** *Partial system audits are conducted annually. A full Joint-Use Pole Loading Analysis is conducted every eight years.*

### 2012 Joint-Use Structural Audits – Distribution Poles (all pole types)

(A) Number of company owned distribution poles.	963,005
(B) Number of company distribution poles leased.	449,832
(C) Number of owned distribution pole attachments (cable & phone attachments on PE poles)	770,211
(D) Number of leased distribution pole attachments. (PE attachments on phone poles)	13,603
(E) Number of authorized attachments. (3952 new attachments permitted in 2012)	774,163
(F) Number of unauthorized attachments. ( <i>pole attachment audit completed in Sept 2011</i> ) *	8,085
(G) Number of distribution poles strength tested. (complete loading analysis needed)	66,565
(H) Number of distribution poles passing strength test. (complete loading analysis needed) **	66,439
(I) Number of distribution poles failing strength test (overloaded).	126
(J) Number of distribution poles failing strength test (other reasons). (Hardware upgrades required)	0
(K) Number of distribution poles to be corrected (strength failure) (added down guy)	75
(L) Number of distribution poles corrected (other reasons).	0
(M) Number of distribution poles to be replaced. (Overloaded poles entered into the DARTS database)	51
(N) Number of apparent NESC violations involving electric infrastructure.	None
(O) Number of apparent NESC violations involving 3 <sup>rd</sup> party facilities.	None

\* Attachment audits are completed every 5 years.

\*\* For each group of poles in a tangent line, the pole that had the most visible loading, line angle, and longest or uneven span length was selected to be modeled for wind loading analysis. If that one pole failed, the next worst case pole in that group of tangent poles was analyzed as well. Each pole analyzed determined the existing pole loading of all electric and communication attachments on that pole. If the existing analysis determined the pole was overloaded, that pole was added to a current year work plan to be corrected. Should the original pole analyzed meet the NESC loading requirements, all similar poles in that tangent line of poles was noted as structurally sound and entered into the database as "PASSED" structural analysis.

### 2012 Joint-Use Attachment Audits – Transmission Poles (all pole types)

(A) Number of company owned transmission poles.	48,295
(B) Number of company transmission poles leased.	5,580
(C) Number of owned transmission pole attachments (cable & phone attachments on PE poles)	8,786
(D) Number of leased transmission pole attachments. (PE attachments on phone poles)	0
(E) Number of authorized attachments.	8,786
(F) Number of unauthorized attachments.	0
(G) Number of transmission poles strength tested.	576
(H) Number of transmission poles passing strength test.	566
(I) Number of transmission poles failing strength test (overloaded).	10*
(J) Number of transmission poles failing strength tests (other reasons).	0
(K) Number of transmission poles corrected (sent to transmission to be scheduled for change out)	12
(L) Number of transmission poles corrected (other reasons).	0
(M) Number of transmission poles replaced	0
(N) Number of apparent NESC violations involving electric infrastructure.	None
(O) Number of apparent NESC violations involving 3 <sup>rd</sup> party facilities.	0

\* The poles identified in 2012 as overloaded will be prioritized and replaced in 2013.

- **State whether pole rents are jurisdictional or non-jurisdictional. If pole rents are jurisdictional, then provide an estimate of lost revenue and describe the company’s efforts to minimize the lost revenue.**

*Pole attachment rents are jurisdictional and are booked in Account 454 – “Rent from Electric Property”. PEF conducts partial audits of its pole attachments throughout the year. A full Joint-Use Pole Loading Analysis is conducted every eight years. When PEF discovers unauthorized attachments on PEF poles, PEF follows-up with the attacher who owns the unauthorized attachments and PEF seeks all revenue applicable under controlling laws, rules, and regulations.*



— **SIX YEAR INSPECTION CYCLE FOR TRANSMISSION STRUCTURES (*Initiative 3*)**

**Describe the extent of the inspection and results pertaining to transmission wires, towers, and substations for reliability and NESC safety matters. The intent is to assure the Commission that utilities know the status of their facilities and that reasonable efforts are taken to address transmission structure reliability and NESC safety matters.**

*Progress Energy Florida's Transmission Department follows Procedure MNT-TRMX-00053 titled "Ground Patrols" (Attachment M) to periodically assess the condition of the transmission circuits. The primary goal of the ground patrol is to inspect transmission line structures and associated hardware and conductor on a routine basis to identify any required material repairs or replacements. Please also see Initiative 3 in PEF's Storm Hardening Plan.*

Transmission Circuit, Substation and Other Equipment Inspections

	2012 Activity		2012 Current Budget		Next Year (2013)	
	Goal	Actual	Budget	Actual	Goal	Budget
(A) Total transmission circuits.	N/A	564	\$3,873,989	\$3,927,081	N/A	\$2,780,056
(B) Planned transmission circuit inspections.	120	N/A	N/A	N/A	120	N/A
(C) Completed transmission circuit inspections.	N/A	195	N/A	N/A	N/A	N/A
(D) Percent of transmission circuit inspections	N/A	35%	N/A	N/A	23%	N/A
(E) Planned transmission substation inspections.	N/A	487	\$16,211,014	\$15,278,604	487	\$16,238,702
(F) Completed transmission substation inspections.	N/A	487	N/A	N/A	N/A	N/A
(G) Percent transmission substation inspections	N/A	100%	N/A	N/A	N/A	N/A
(H) Planned transmission equipment inspections (other equipment).	N/A	N/A	N/A	N/A	N/A	N/A
(I) Completed transmission equipment inspections (other equipment).	N/A	N/A	N/A	N/A	N/A	N/A
(J) Percent of transmission equipment inspections completed (other	N/A	N/A	N/A	N/A	N/A	N/A

*Note: For most entries of "N/A" in the chart above, Progress Energy Florida does not specifically budget for Transmission line or substation inspections on an item by item basis. The budget and actual figures that are entered include inspections, emergency response, preventative maintenance, training, and other O&M Costs.*

## Transmission Pole Inspections

	2012 Activity		Current Budget (2012)		Next Year (2013)	
	Goal	Actual	Budget	Actual	Goal	Budget
(A) Total number of transmission pole structures.	N/A	48,295	\$3,873,989 See Note 1	\$3,927,081 See Note 1	N/A	\$2,778,056 See Note 1
(B) Number of transmission pole structures strength tested.  <i>Item A: number of poles analyzed</i>  <i>Item B: Number of pole structures ground inspected (wood, steel &amp; concrete)</i>	N/A	A: 576 B: 18,774	N/A	N/A	See Note 3	N/A
(C) Number of transmission pole structures passing strength test.  <i>Item A: number of poles analyzed</i>  <i>Item B: Number of pole structures ground inspected (wood, steel &amp; concrete)</i>	N/A	A: 566 B: 18,774	N/A	N/A	N/A	N/A
(D) Number of transmission poles failing strength test (overloaded).	N/A	10	N/A	N/A	N/A	N/A
(E) Number of transmission poles failing for other reasons – <i>Ground Inspection</i> (See Note 2)	N/A	1,124	N/A	N/A	N/A	N/A
(F) Number of transmission poles corrected (strength failure).	N/A	0 See note 4	N/A	N/A	N/A	N/A
(G) Number of transmission poles corrected for other reasons - <i>Ground Inspection</i>	N/A	803 see note 2	N/A	N/A	N/A	N/A
(H) Total transmission poles replaced.	N/A	1,080 see note 5	N/A	N/A	N/A	N/A

*Note 1: Progress Energy Florida does not specifically budget for Transmission line or substation inspections on an item by item basis. The budget and actual figures that are entered include inspections, emergency response, preventative maintenance, training, and other O&M costs.*

*Note 2: Progress Energy Florida Transmission has prioritized the remaining number of transmission poles that need to be corrected based upon the inspection results and the status of the poles. Poles that needed to be replaced quickly have already been replaced as reflected above. Poles that can remain in service have been prioritized and PEF is in the process of working through corrections based on those prioritizations.*

*Note 3: Transmission circuits are inspected on a 3 or 5 year cycle depending on structural material. Inspections are planned and completed based on the 5 year cycle.*

*Note 4: PEF Transmission identified the potential strength failure using approximate calculations. The identified strength failing poles are being reviewed using exact wind and weight spans of attachments. The poles that fail the strength requirement will be prioritized to be replaced.*

*Note 5: Maintenance Change outs of wood poles inclusive of (G).*

- *Please also see Attachment O – “Wood Pole Inspection Report” filed on March 1, 2013 with the FPSC.*

#### STORM HARDENING ACTIVITIES FOR TRANSMISSION STRUCTURES (*Initiative 4*)

**Describe the extent of any upgrades to transmission structures for purposes of avoiding extreme weather, storm surge or flood-caused outages, and to reduce storm restoration costs. The intent is to assure the Commission that utilities are looking for and implementing storm hardening measures.**

Hardening of Existing Transmission Structures

	2012 Activity		Current Budget (2012)		Next Year (2013)	
	Goal	Actual	Budget	Actual	Goal	Budget
(A) Transmission structures scheduled for hardening.	1,725	N/A	\$91.0M	N/A	1,590	\$108.8M
(B) Transmission structures hardening completed.	N/A	1,819	N/A	\$106.5M	N/A	N/A
(C) Percent transmission structures hardening	N/A	105%	N/A	N/A	N/A	N/A

*Note: Budget and Actual costs include maintenance pole change-outs, insulator replacements, and other capital costs. The budget and actual figures also include DOT/Customer Relocations, line rebuilds and System Planning additions. Structures are designed to withstand current NESC Wind Requirements and are build utilizing steel or concrete structures. PEF does not break out the cost of the structures separately and is reporting the entire construction costs for the Transmission Line Projects.*



## GEOGRAPHIC INFORMATION SYSTEM (GIS) (Initiative 5)

*In 2008, PEF completed the transition to the new GIS system (G-Electric). The move to G-Electric enabled PEF to migrate from a location based GIS system to an asset based GIS system (consistent with Commission Order No. PSC-06-0351-PAA-EI).*

*In addition to this effort, Progress Energy created a team dedicated to upgrading the Work Management system. The scope of this project included the implementation of the Facilities Management Data Repository (FMDR) along with the Compliance Tracking System (CTS). The implementation of these two systems was completed in 2011, allowing for Progress Energy to facilitate the compliance tracking, maintenance, planning, and risk management of the major Distribution assets.*

*Since its creation in 2010, the Distribution Data Integrity department has continued to ensure the accuracy and quality of the data within the Geographical Information System (GIS) and the Outage Management System (OMS). This department has created and enhanced key performance indicators that are used to continually measure and monitor the quality of PEF's GIS and OMS data. The consistency, accuracy, and dependability of these systems have led to improvements in the reliability and performance of our utility system, contributing to the safety of the PEF field crews.*

### Distribution OH Data Input

	Activity (2012)		Current Budget (2012)		Next Year (2013)	
	Goal	Actual	Budget	Actual	Goal	Budget
(A) Total number of system wide OH assets for input.	N/A	N/A	N/A	N/A	N/A	N/A
(B) Number of OH assets currently on system.	N/A	1,333,701	N/A	N/A	N/A	N/A
(C) Percent of OH assets already on system.	N/A	100%	N/A	N/A	N/A	N/A
(D) Annual OH assets targeted for input (goal).	N/A	N/A	N/A	N/A	N/A	N/A
(E) Annual OH assets input to system (actual).	N/A	N/A	N/A	N/A	N/A	N/A
(F) Annual percent of OH assets input.	N/A	100%	N/A	N/A	N/A	N/A

### Distribution UG Data Input

	Activity (2012)		Current Budget (2012)		Next Year (2013)	
	Goal	Actual	Budget	Actual	Goal	Budget
(A) Total number of system wide UG assets for input.	N/A	N/A	N/A	N/A	N/A	N/A
(B) Number of UG assets currently on system.	N/A	170,710	N/A	N/A	N/A	N/A
(C) Percent of UG assets already on system.	N/A	100%	N/A	N/A	N/A	N/A
(D) Annual UG assets targeted for input (goal).	N/A	N/A	N/A	N/A	N/A	N/A
(E) Annual UG assets input to system (actual).	N/A	N/A	N/A	N/A	N/A	N/A
(F) Annual percent of UG assets input.	N/A	100%	N/A	N/A	N/A	N/A

### Transmission OH Data Input

	Activity (2012)		Current Budget (2012)		Next Year (2013)	
	Goal	Actual	Budget	Actual	Goal	Budget
(A) Total number of system wide OH transmission assets for input.	N/A	48,778	N/A	N/A	N/A	N/A
(B) Number of OH transmission assets currently on system.	N/A	48,295	N/A	N/A	N/A	N/A
(C) Percent of OH transmission assets already on system.	N/A	99%	99%	N/A	99%	N/A
(D) Annual OH transmission assets targeted for input.	N/A	N/A	N/A	N/A	N/A	N/A
(E) Annual OH transmission assets input to system.	N/A	N/A	N/A	N/A	N/A	N/A
c(F) Annual percent of OH transmission assets input.	N/A	N/A	1%	N/A	1%	N/A

### Transmission UG Data Input

	Activity (2012)		Current Budget (2012)		Next Year (2013)	
	Goal	Actual	Budget	Actual	Goal	Budget
(A) Total number of system wide UG transmission assets for input.	N/A	69.87 miles	N/A	N/A	N/A	N/A
(B) Number of UG transmission assets currently on system.	N/A	69.87 miles	N/A	N/A	N/A	N/A
(C) Percent of UG transmission assets already on system.	N/A	100%	N/A	N/A	N/A	N/A
(D) Annual UG transmission assets targeted for input.	N/A	N/A	100%	N/A	N/A	N/A
(E) Annual UG transmission assets input to system.	N/A	N/A	N/A	N/A	N/A	N/A
(F) Annual percent of UG transmission assets input.	N/A	100%	N/A	N/A	N/A	N/A

## POST-STORM DATA COLLECTION AND FORENSIC ANALYSIS (*Initiative 6*)

### a) **Has a forensics team been established?**

#### Distribution

*Yes. The forensics process will again participate in PEF's 2013 Storm Drill.*

#### Transmission

*Yes.*

### b) **Have forensics measurements been established? If yes, please describe/provide.**

#### Distribution

*Yes. During the field observations, Forensic Assessors collect various information regarding poles damaged during storm events:*

- *Data points typically collected during the initial approach to the pole would include; pole type, number of conductors, joint-use status, number of transformers and other distribution equipment attached, etc.*
- *Data points typically collected during the pole detail review would include; birth date, pole class, pole height, etc.*
- *Data points typically collected during the site review would include a free form rendering of the site as well as qualitative data about damaged pole structures (e.g. whether the pole is leaning, broken, location of break, etc.).*

#### Transmission

*Yes. The forensic team shall collect sufficient data at the failure sites to determine the nature and cause of the failure. Data collection shall include the following:*

- *Structure identification*
- *Photographs*
- *Sample of damaged components as necessary*
- *Field technical assessment (soil conditions, exposure, vegetation, etc)*
- *Inventory of attachments and guys*

*Forensic Analysis: Data and forensic samples will be analyzed to determine the cause and correlating factors contributing to the failure. Analysis will include as required:*

- *Conditional assessment of failed components*
- *Structural evaluations*
- *Failure analysis*
- *Correlation with storm path and intensity*
- *Correlation with GIS data*



c) **Has a forensics database format been established?**

Distribution

*Yes, in collaboration with the University of Florida's Public Utility Research Center (PURC), PEF and the other Florida investor owned utilities developed a common format to collect and track data related to damage discovered during a forensics investigation. This ensures we are collecting compatible data to allow analysis of performance and refinement of the inputs to OH to UG Cost/Benefit model.*

Transmission

*Yes, PEF Transmission uses a spreadsheet tool to manage the data described in subsection (b) above.*

d) **Describe/provide GIS and forensics data tracking integration.**

Distribution

*Pole location information is manually collected during forensic inspections in the field. Data is then available for analysis using GIS applications.*

*We have re-assessed statistical pods in our GIS system to ensure their accuracy and statistical validity as a sample of the Progress Energy service territory. The statistical pods are a post-storm sample used to quickly forecast the level of damage sustained by our facilities following a major storm or hurricane. The damage assessment that results from these statistical samples allows more accurate targeting of the need and location for forensics teams.*

Transmission

*The forensic data that is collected is identified and cataloged by the structure number or GPS coordinate if the structure number is not available. The failure data can then be correlated with the data contained in the MapInfo GIS system. The maintenance history of the poles/structures will be populated in the GIS system.*

e) **Describe/provide forensics and restoration process integration. (Established and documented processes to capture forensics data during the restoration process.)**

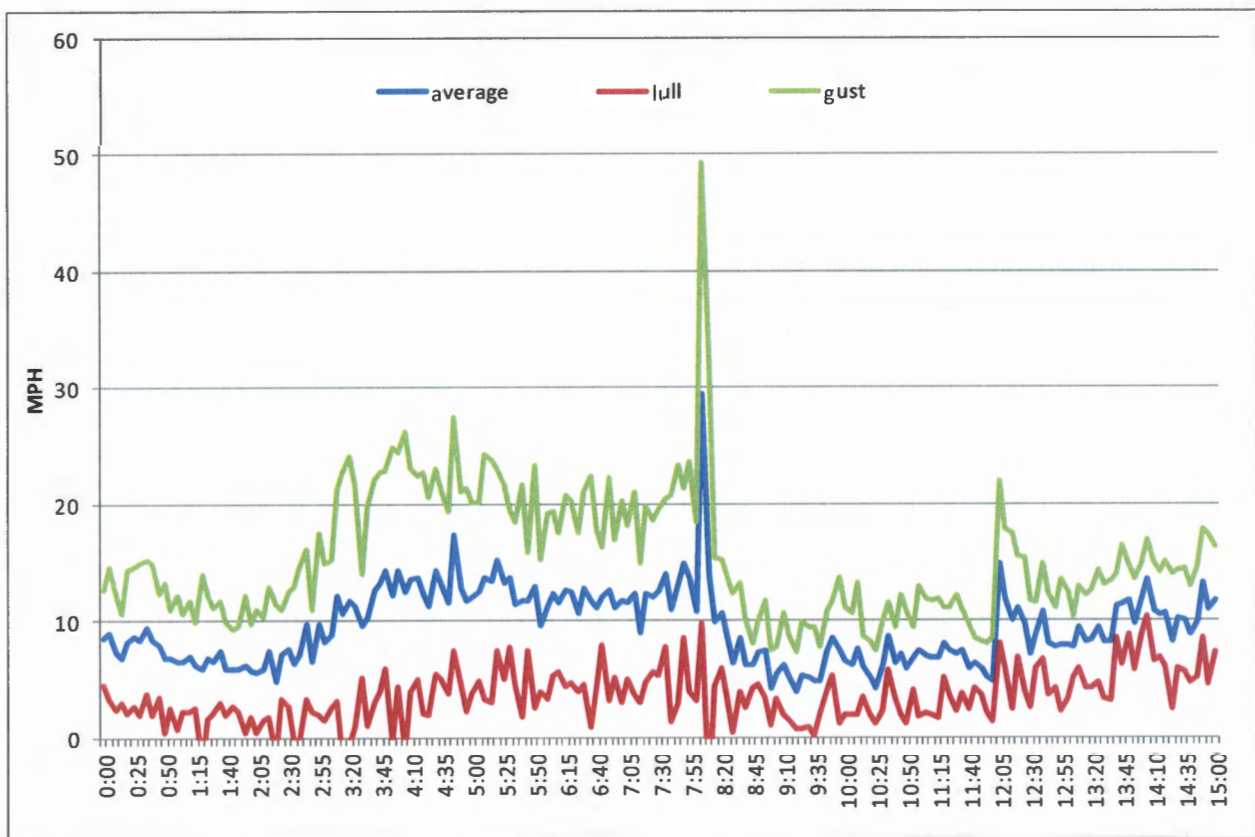
*See Attachment U - "Damage Assessment" – EMG-EDGX-00048 - Distribution's damage assessment process and "Transmission Storm Forensic Analysis Specification".*

f) **Describe/provide any forensics data sampling methodology.**

Distribution

*Forensic assessors are mobilized to areas predicted to have the highest sustained wind speeds within the service territory to identify pole failure modes in a manner that will minimize interference with the restoration process.*

*As a result of the installation of weather stations across Florida (as part of the collaborative research project done with PURC and the other Florida electric utilities), we are now able to correlate, at a high level, experienced outages with nearby wind speeds. The graph below shows the registered wind speeds (mph) at the Land O Lakes substation weather station as severe weather caused more than 500 outages on April 5, 2011. This type of information is augmented with on-site forensics data following a major storm or hurricane.*



Transmission

See Attachment U.

- g) **Describe/provide forensics reporting format used to report forensics results to the Company and the Commission.**

*See Attachment U - "Damage Assessment" – EMG-EDGX-00048 - Distribution's damage assessment process and "Transmission Storm Forensic Analysis Specification".*

## OVERHEAD/UNDERGROUND RELIABILITY (OH/UG) (*Initiative 7*)

- a. Describe the five year patterns/trends in reliability performance of underground systems vs. overhead systems.**

*See Attachment V - "Comparison of Historical Trends – Overhead vs. Underground" Spreadsheet.*

- b. Describe Company efforts to separately track the reliability of overhead and underground systems.**

*Following is a description of the process that will be used to separately track the reliability of overhead and underground systems:*

*PEF collects information to determine the percentage of storm caused outages on overhead systems and underground systems. Some assumptions are required when assessing the performance of overhead systems versus underground systems. For example, underground systems are typically protected by overhead fuses. PEF will provide for these factors in its analysis.*

*PEF has an internal hierarchy in its Outage Management System (OMS) that models how all of its facilities are connected to each other. This information provides the connection to the feeder breaker down to the individual transformer. PEF's Customer Service System (CSS) captures which customer is tied to what individual transformer. PEF's Geographical Information System (GIS) provides several sets of data and information points regarding PEF's assets. PEF uses these systems to help analyze the performance of the following types of overhead and underground assets:*

- *Breakers*
- *Electronic Reclosers*
- *Fuses*
- *Hydraulic Reclosers*
- *Interrupters*
- *Motor Operated Switches*
- *OH Conductors*
- *OH Transformers*
- *Primary Meters*
- *Switch Gear Fuses*
- *Sectionalizers*
- *Services*
- *Switches*
- *Terminal Pole Fuses*
- *Under Ground Conductors*
- *Under Ground Transformers*

*As part of this process, the location of each feeder circuit point is determined by approximating the geographic midpoint of each circuit. Outages experienced as a result of a*



named storm will be extracted from system data. The outages will then be grouped by feeder circuit ID and by outage type, where outage type is either overhead or underground. The number of customers interrupted by an overhead device will then be summed by feeder circuit ID and the number of customers interrupted by an underground device will be summed by feeder circuit ID. A single feeder circuit may have overhead and underground outages, so approximations will be made in those circumstances.

Once this information is collected, the percentage of customers interrupted will be calculated by dividing the sum of customers interrupted per feeder circuit by the total customers served for that feeder circuit. This process is applied as the sum of customers interrupted by all overhead devices on a feeder circuit divided by the number of customers served by the feeder circuit and the sum of customers interrupted by all underground devices on a feeder circuit divided by the number of customers served by the feeder circuit. As a result of this process, PEF will produce graphic representations of performance such as those depicted below:

OH Construction Outage Severity



UG Construction Outage Severity



PEF also collects available performance information as a part of the storm restoration process via servicemen in the field, such as:

- Restore time
- Cause code
- Observations and comments
- Failed device name
- Failed device size
- Failed device type
- Failed device phase
- Failed device location

**c. Describe the process used by your company to identify and select the actions to promote underground distribution systems.**

PEF notes that it does not necessarily promote underground distribution systems in all instances. Rather, PEF's programs are designed to identify areas where an underground distribution system would be effective both from an operational and cost/benefit perspective, and to help customers considering underground projects to receive the information that they need to make a well-thought decision.

In 2007, PEF created a project management organization dedicated to streamlining the engineering and construction of all infrastructure projects including underground conversions. There were 3 OH/UG conversion projects completed in 2012, totaling 1,530 feet or 0.29 circuit miles under the work plan. In addition, there were 4 locations that were completed at customer request, totaling 3.1 circuit miles.

In 2012, PEF installed 145 circuit miles of new underground cable. Overall, the PEF distribution system consists of 41.7%% primary underground circuit miles (12,980 circuit miles).

**d. Provide Overhead/Underground Metrics (miles, # of customers, CMI, CI, MAIFle, CEMI5 and L-bar for calendar year)**

See Attachment W – "Overhead / Underground Metrics".

## — COORDINATION WITH LOCAL GOVERNMENTS (*Initiative 8*)

### **Update on Progress Energy Florida's storm planning and local government coordination activities for 2012:**

*PEF's storm planning and response program is operational 12 months out of the year and response activities for catastrophic events can be implemented at any time. Currently, there are approximately 60 resources assigned to coordination with local government as part of an emergency planning and response program. Also, more than 37 employees are assigned full-time, year-round, to coordinate with local government on issues such as emergency planning, vegetation management, undergrounding and service related issues.*

***Vegetation Management*** – Maintaining trees and vegetation along distribution and transmission rights of way helps reduce outages on a day-to-day basis as well as during storm events and enhances safety for customers, as well as PEF employees and contractors. PEF maintains a rigorous inspection process that identifies vegetation encroachments and ensures vegetation-management activities follow required pruning and clearance specifications.

***Know Where You Grow*** – PEF's "Know Where You Grow" initiative educates communities and the public in general on choosing trees wisely for compatibility with power lines. This initiative's goal is to improve reliability and reduce tree related outages. Each year, PEF conducts special community events throughout PEF's service territory during which trees (3 gallon, low growing) are distributed as part of a broad public education campaign. Along with the trees, educational materials are distributed and discussed by vegetation management experts and other PEF representatives.

***Tree Trimming*** - To enhance communication with our communities regarding specific tree trimming projects, we meet with municipalities prior to implementation of significant projects in order to inform them of the general areas that are expected to be impacted, note concerns, and answer questions. PEF also conducts communication and outreach to customers along the impacted feeders for significant activities to inform them of the project, as well as explain the need for vegetation management.

***Tree Line USA*** – In 2012, PEF achieved the designation of "Tree Line USA Utility." This designation is given by the National Arbor Day Foundation, in cooperation with the National Association of State Foresters. It recognizes public and private utilities across the nation that demonstrate practices that protect and enhance community forests while managing the need for reliable electric power. This is the sixth consecutive year PEF has received the Tree Line USA designation.

***Undergrounding*** – PEF works proactively with communities to inform them of available undergrounding programs and to be a part of their planning processes. This assists them in several ways – better fiscal planning, coordination with other utilities, and improved communications with residents affected. Currently, PEF is working with cities in Pinellas County in response to a multi-year plan by the communities to underground utilities along Gulf Boulevard.

***Other Construction Projects*** – In addition to undergrounding conversion projects, there are planned transmission and distribution projects that are expected to result in improvements to system reliability



- during storm events. PEF works extensively with local governments and communities to coordinate such projects.

**Emergency Planning and Coordination** – PEF’s team works with counties and municipalities year round and during catastrophic events. Prior to storm season, PEF holds meetings with communities to discuss emergency planning preparations and coordination, participates in county drills and training exercises, and holds community education workshops and events.

As part of our yearly planning process, we work with counties to identify and prioritize specific infrastructure within the counties. This prioritization of accounts is factored into restoration activities by our operation centers during storms.

We have developed our capability to produce detailed electronic outage information which is provided to county Emergency Operations Centers (EOCs) throughout storm events. The information is available in multiple formats, including formats that may be imported into county GIS systems. This program provides significant information to EOCs during storms to assist in their response efforts. Information includes detailed outage data per each square mile within the county and is produced periodically during each day of a significant catastrophic event. During 2012, PEF modified its program to make this detailed outage data available to counties during mid-level storm events as well.

Additionally, in 2012, PEF furthered the use of county-specific EOC email addresses. These email addresses were established to facilitate communications between the County EOCs and Progress

- Energy personnel during storm season and major storm events. These email addresses will allow continuity of communication for the EOCs at any given time. All issues and resolution of issues may be handled through the single email address which will be monitored by an assigned representative.

### **2012 Activities**

The following activities are not an exhaustive list, but include many of the activities associated with Progress Energy’s coordination activities with state and local governments for 2012:

- Emergency Operation Center visits were performed in Alachua, Bay, Citrus, Columbia, Franklin, Gadsden, Gilchrist, Gulf, Hamilton, Hardee, Hernando, Highlands, Jefferson, Lafayette, Lake, Liberty, Leon, Levy, Madison, Marion, Orange, Osceola, Pasco, Pinellas, Polk, Seminole, Sumter, Suwannee, Taylor, Volusia and Wakulla counties at the EOCs to review storm procedures prior to storm season. (February – June 2012)
- FEMA hosted a conference through the Emergency Management Institute in Emmitsburg, Maryland, with a focus on disaster recovery and mitigation. Exercise participants included Citrus County EOC staff, community organizations, local government, first responders and local utilities. PEF participants include employees from the Crystal River Energy Complex, Inverness Operations Center and Community Relations. (February, 2012)
- Sumter County EOC Exercise - PEF reviewed storm procedures with the county during the county’s drill in preparation of the upcoming storm season. (March 2012)
- Seminole County EOC Annual Training – Several PEF EOC representatives attended the annual training hosted by the EOC to discuss updated procedures and answer questions. (April 2012)



- • *Gulf County hosted the Governor’s Hurricane Conference sponsored “Small Community Integrated Emergency Management Course.” PEF representatives attended this training and a tabletop exercise with the goal of providing the knowledge, skills and abilities necessary for local emergency management professionals and EOC staff to effectively conduct hurricane response by coordinating operations with counterparts from local, state and federal government, private sector organizations and non-governmental agencies. (April 2012)*
- *PEF Commercial, Industrial, Governmental Seminar – PEF representatives hosted a storm presentation and restoration seminar for commercial, industrial and governmental customers. (April 2012)*
- *Members of PEF’s Community Relations Manager, Large Account Management representatives and the local Operations Manager met with the Volusia County Public Schools Director of Facilities to discuss storm plans. PEF representatives also met with the Seminole County Public Schools Superintendent, the Assistant Superintendent, the Director of Transportation and the Director of Facilities to discuss storm planning. (May 2012)*
- *All-Hazards Expo for Citrus County – PEF participated, in conjunction with the Citrus County Sheriff’s Office and along with other vendors, to provide information to the public regarding emergency preparedness. (May 2012)*
- • *Seminole County Emergency Operations Center Table Top Exercise – PEF participated in a mock-drill for the pre-storm, during and post-storm stages of emergency response. (May 2012)*
- *Florida Statewide Hurricane Exercise - Representatives throughout the PEF service territory participated in storm preparedness activities throughout this event. (May 2012)*
- *7<sup>th</sup> Annual Hurricane Expo for The Villages – Presented by The Villages Public Safety Department, PEF attended this expo for residents in Lake, Sumter and Marion Counties. (May 2012)*
- *Storm Forum/Municipal Summit - Hosted by PEF in Pinellas and Pasco Counties, the event was attended by local elected officials and staff as well as large government and commercial PEF customers. PEF worked closely with these EOCs during Tropical Storm Debby, Tropical Storm Isaac, and Hurricane Sandy. (May and June 2012)*
- *Annual Pasco and Pinellas County EOC Drills - PEF EOC representatives attended the annual EOC drills hosted by the Pasco and Pinellas EOCs to discuss updated procedures and answer questions. (May and June 2012)*
- *Polk County Hurricane Expo - County residents attended this expo where PEF had the opportunity to speak to families about products, services, weather and hurricane readiness. (June 2012)*
- • *EOC Annual Electrical Meeting at the Polk County EOC – PEF EOC representatives attended the meeting to discuss storm planning activities and coordination. (June 2012)*

## **2013 Activities**

*The following activities are currently planned activities associated with Progress Energy's coordination activities with state and local governments for 2013:*

### ***State Activities:***

- *Florida's Severe Weather Awareness Week (February 11-15, 2013)*
- *Florida's Statewide Tornado Drill (February 15, 2013)*
- *27<sup>th</sup> Annual Governor's Hurricane Conference (May 5-10, 2013)*
- *Florida Statewide Hurricane Exercise (May 20-23, 2013)*
- *Governor's Annual Domestic Security Executive Exercise (TBD)*

### **2013 County/City Activities:**

- *PEF representatives will meet with county representatives in each of our counties throughout our service territory during the year as well as participate in pre-storm season planning activities such as mock drills at the County EOCs. These meetings and visits will also include updating the EOCs on PEF emergency response policies and PEF website demonstrations on how to access electronic outage information during storm events. Some examples are provided below.*
  - *PEF conducts ongoing communications with municipalities to provide information about Progress Energy's emergency response planning, respond to inquiries, and to update county contact information for all EOCs.*
  - *PEF executives will meet with many of the county EOC directors and their staff to discuss PEF's storm response planning and enhancement of the coordination between the company and county emergency management.*
- *PEF will meet with school board superintendents and their staff to discuss storm coordination, restoration prioritization, shelter locations and back-up generation availability.*
- *PEF will participate in many community hurricane and storm expos held by counties or federal or state agencies throughout our service territory and beyond, to inform the public and encourage appropriate storm preparation by residents and business.*
  - *PEF is planning a storm forum in Pinellas County in the April/May timeframe at a Progress Energy facility to include fire and police chiefs, city managers and utility directors. PEF will review our storm plan and tour the facility.*
- *Throughout 2013, there will be events throughout the PEF service territory to educate the public about proper tree planting and vegetation management around transmission and distribution*

— lines. PEF will partner with schools and municipalities to pass out educational materials to promote the Know Where You Grow campaign. In addition to education, trees will be donated and/or planted at these events. PEF will also participate regionally in related Arbor Day and Earth Day activities.

- 2013 Hurricane and Healthcare Conference in St. Petersburg, Florida – PEF plans to attend this event which seeks to provide the most up-to-date information and continuing education to assist Tampa Bay's health care professionals plan, educate, and evaluate their readiness for disaster response and recovery.
- PEF has developed a partnership with the Council of Neighborhood Associations (CONA), that provides opportunities to communicate to over 110 HOAs through articles in their monthly newsletters. We also meet with many other HOAs and POAs throughout the PEF service territory. We use these opportunities to inform the residents of storm preparation activities and provide information prior to storm season.
- PEF is working with the Pinellas County barrier island communities that have expressed a strong interest in undergrounding with the assistance of county funds for these infrastructure projects.
- PEF conducts an internal week-long storm preparedness training prior to storm season to simulate the response to a real storm including pre-storm preparations activities during a major storm event and post-storm response. During this exercise, the county EOCs are engaged as part of the simulation.
- PEF has created a webpage with an interactive map that is available to the public, including the media and local governments. The interactive map provides access to the latest outage information twenty-four hours a day, seven days a week. These maps provide county-specific estimates for power restoration when available and the ability to search by address
- PEF has developed a system to report outages online via computer or other mobile device. This online reporting tool gives our customers another way to communicate with PEF, helping ensure any disruptions in service are recognized immediately and that power is restored as quickly and safely as possible.
- PEF plans to use social media such as Twitter and Facebook to send updates on storm-related restorations.
- PEF has added four state-of-the-art mobile command centers. Each of these electric generator powered mobile command centers is equipped with work stations, satellite phones and internet capabilities and will be stationed in the hardest hit areas following a major storm event. These mobile command centers will act as self-sufficient emergency command posts, giving PEF the ability to respond more quickly to isolated or severely damaged areas. The units will also serve as individual processing locations allowing field supervisors to effectively manage the flow of the thousands of employees from numerous utilities responding to a single staging site following a storm.



— **COLLABORATIVE RESEARCH (Initiative 9)**

**Project Planning Report:** For each project identified by the Steering Committee, provide a report that includes the purpose, scope, objectives, research method, data inputs, expected costs and benefits, sources of funding, schedule, and findings to date.

*Please see Attachment X - "PURC Report on Collaborative Research for Hurricane Hardening" dated February 2013.*

**Annual Progress Report:** For each project previously identified by the Steering Committee for which ongoing research is being pursued but not completed, provide an annual report, including updates on all aspects of the Project Planning Report.

*Please see Attachment X - "PURC Report on Collaborative Research for Hurricane Hardening" dated February 2013.*

**Project Completion Summary Report:** For each concluded project identified by the Steering Committee, provide a report that includes an assessment of the success of the research project, as well as any proposed implementation plan for any results or findings for each utility. Describe the benefits expected or realized as a result of plan implementation on storm hardening for each utility.

— *Please see Attachment X - "PURC Report on Collaborative Research for Hurricane Hardening" dated February 2013.*

**Annual Report of the Collaborative Research Effort:** Provide a report to include an overall assessment of the collaborative research program to date, as described in the Memorandum of Understanding (MOU) dated January 1, 2010, including its operational and financial viability and future planning of the organization. Identify any extension of the MOU contemplated or finalized by the Steering Committee.

*Please see Attachment X - "PURC Report on Collaborative Research for Hurricane Hardening" dated February 2013.*

**Describe the projects promoted, costs incurred, and benefits achieved. A single joint filing can address all collaborative research. Utilities should also discuss any additional independent activities in which it is engaged, such as EPRI, private research, or through universities.**

*Please see Attachment X - "PURC Report on Collaborative Research for Hurricane Hardening dated February 2013. In addition to PEF's involvement with PURC, PEF is actively engaged as both participant and presenter in a variety of technical and professional organizations where hardening alternatives are reviewed and assessed. Examples include the Southeastern Electric Exchange (SEE), Edison Electric Institute (EEI), Institute of Electrical and Electronics Engineers (IEEE), Chartwell Hardening Teleconference, and Davies Consulting Asset Management Conference. PEF Standards engineers also assess new products on a continuous basis.*



- **DISASTER PREPAREDNESS AND RECOVERY PLAN (*Initiative 10*)**  
**Submit formal disaster preparedness plan annually by March 1<sup>st</sup>. Include disaster recovery training completed, pre-storm preparation and staging activities, post storm recovery plans, lessons learned, and plan modifications or changes.**

*Progress Energy has an established storm recovery plan that is reviewed and updated annually based on lessons learned from the previous storm season and organizational needs.*

*For Distribution - See Attachment Y – “Distribution System Storm Operational Plan (DSSOP).*

*For Transmission – See Attachment Z – “Transmission Storm Plan”.*

## **VI. OTHER STORM HARDENING INITIATIVES (OH/UG)**

- a. For each of the other ongoing storm hardening initiatives provide a detailed discussion describing the activity and costs incurred for 2012 and projected for 2013.**

*Please see PEF's Storm Hardening Plan – Attachment J. Also, please see response on Page 40.*

**b. Overhead/Underground**

- i. Describe the process used by your company to identify the scope of storm hardening projects.
- ii. Provide any quantified expected benefits.
- iii. If benefit quantification is not practical or possible at this time, explain when or how the cost-effectiveness of the activity is assessed.

*Please see PEF's Storm Hardening Plan – Attachment J. Also, please see response on Page 40.*

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Corrective action and how many poles were corrected .....	"Attachment O"
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# **ATTACHEMENT A**

# Florida PSC Report - Without Exceptions

(PEF Transmission Outages - Major Events Excluded)

For Reporting Year: 2012



Source of Data - TOMS

Data Current as of:

2/15/2013

<u>Date/Time</u>	<u>Location</u>	<u>Retail CMI</u>	<u>Grid CMI</u>	<u>Initiating Cause</u>	<u>Sustained Cause</u>	<u>Outage ID</u>
01/03/12 04:49:29	BELLEAIR 69KV (0055)	60,640	60,640.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - ELECTRICAL	<a href="#">29206</a>
01/08/12 15:42:00	FT WHITE - SUWANNEE AM CMT PL 115KV RADIAL (FWSAX-1)	0	38.00	SUB - CUSTOMER - REA/EMC	SUB - CUSTOMER - REA/EMC	<a href="#">29230</a>
01/08/12 19:52:03	KELLER ROAD 69KV (0003)	41,360	41,360.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	RELAY - HUMAN ERROR - INCORRECT SETTING APPLIED	<a href="#">29251</a>
01/09/12 07:08:00	SOUTH FORT MEADE 115KV (0360)		73.00	SUB - EQUIPMENT - TRANSFORMER - BUSHING	SUB - EQUIPMENT - TRANSFORMER - BUSHING	<a href="#">29254</a>
01/27/12 09:29:37	OCC SWIFT CREEK #1 - OCC SWIFT CREEK #2 115KV (SCSC-1)	0	34.00	SUB - EQUIPMENT - TRANSFORMER - ARRESTER	SUB - EQUIPMENT - TRANSFORMER - ARRESTER	<a href="#">29332</a>
01/05/12 17:40:32	POINCIANA NORTH 69KV (0502)	29,988	29,988.00	RELAY - HUMAN ERROR - SETTING ERROR	RELAY - HUMAN ERROR - SETTING ERROR	<a href="#">29361</a>
02/03/12 11:04:08	REDDICK 69KV (0058)	25,795	25,795.00	LINE - HUMAN ERROR - CONTRACTOR - CONSTRUCTION	LINE - HUMAN ERROR - CONTRACTOR - CONSTRUCTION	<a href="#">29371</a>
02/05/12 08:29:47	LAKE WEIR 69KV (0048)	37,350	37,350.00	SUB - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">29377</a>
02/06/12 10:21:30	REDDICK 69KV (0058)	18,528	18,528.00	LINE - HUMAN ERROR - CONTRACTOR - CONSTRUCTION	LINE - HUMAN ERROR - CONTRACTOR - CONSTRUCTION	<a href="#">29378</a>
02/19/12 11:41:11	FT WHITE - JASPER 69KV (JF-1)	0	15,087.60	LINE - TREE - NON-PREVENTABLE	LINE - TREE - NON-PREVENTABLE	<a href="#">29433</a>
02/25/12 12:13:47	CROSSROADS - PASADENA UG 115KV (UGKP-2)	1,335,738	1,335,738.00	RELAY - EQUIPMENT - PHASE	RELAY - EQUIPMENT - PHASE	<a href="#">29482</a>
02/27/12 10:12:37	GA PACIFIC - WILCOX 69KV (WGP-1)	0	4,688.40	LINE - UNKNOWN - UNDER INVESTIGATION	LINE - UNKNOWN - INVESTIGATION COMPLETE	<a href="#">29491</a>
02/27/12 12:22:40	HORSE CREEK 69KV (0006)		162.00	SUB - OTHER - FORIEGN MATERIAL	SUB - OTHER - FORIEGN MATERIAL	<a href="#">29494</a>
02/27/12 16:19:11	HOLOPAW 230KV (0161)	198,363	198,363.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	LINE - UNKNOWN - INVESTIGATION COMPLETE	<a href="#">29496</a>
02/08/12 08:14:59	LEBANON 69KV (0141)	640	640.00	SUB - PLANNED - MAINTENANCE AND CONSTRUCTION	SUB - PLANNED - MAINTENANCE AND CONSTRUCTION	<a href="#">29512</a>

<u>Date/Time</u>	<u>Location</u>	<u>Retail CMI</u>	<u>Grid CMI</u>	<u>Initiating Cause</u>	<u>Sustained Cause</u>	<u>Outage ID</u>
03/03/12 16:33:49	NEWBERRY - TRENTON 69KV (NT-1)	0	4,293.60	LINE - TREE - NON-PREVENTABLE	LINE - TREE - NON-PREVENTABLE	<a href="#">29523</a>
03/10/12 02:17:17	JACKSON BLUFF - TALLAHASSEE 69KV (JT-1)	0	214,585.20	LINE - PUBLIC INTERFERENCE - VEHICLE	LINE - PUBLIC INTERFERENCE - VEHICLE	<a href="#">29551</a>
02/25/12 12:13:46	PILSBURY - VINOY UG 115KV (UGVP-1)	159,489	159,489.00	RELAY - EQUIPMENT - FORIEGN MATERIAL	RELAY - EQUIPMENT - FORIEGN MATERIAL	<a href="#">29566</a>
03/06/12 12:33:59	THIRTY SECOND STREET 115KV (0366)	34,550	34,550.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - PROTECTION/CONTROL	<a href="#">29619</a>
03/25/12 14:38:56	HOLOPAW - WEST LAKE WALES 230KV (WLXF-3)	15,884	20,396.00	LINE - EQUIPMENT - INSULATOR	LINE - EQUIPMENT - INSULATOR	<a href="#">29649</a>
03/29/12 13:09:59	ORANGE SWITCHING STA - SOUTH BARTOW 69KV RADIAL (FMB-5)	58	119.00	LINE - EQUIPMENT - CROSSARM	LINE - EQUIPMENT - CROSSARM	<a href="#">29679</a>
02/27/12 13:55:00	APALACHICOLA 69KV (0053)	2,655	2,655.00	LINE - HUMAN ERROR - SELF INFLICTED	LINE - HUMAN ERROR - SELF INFLICTED	<a href="#">29719</a>
04/10/12 01:01:30	EUSTIS SOUTH - SORRENTO 69KV (SES-1)	0	348,150.60	LINE - ANIMAL - BIRD - CLEARANCE	LINE - ANIMAL - BIRD - CLEARANCE	<a href="#">29757</a>
04/16/12 19:50:00	BROOKSVILLE - INVERNESS 69KV - WILDWOOD (HB-2)	1,785	1,785.00	LINE - NEIGHBORING UTILITY - EQUIPMENT	LINE - NEIGHBORING UTILITY - EQUIPMENT	<a href="#">29808</a>
04/14/12 11:07:48	KELLER ROAD 69KV (0003)	63,540	63,540.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	RELAY - HUMAN ERROR - INCORRECT SETTING APPLIED	<a href="#">29826</a>
04/17/12 13:39:28	DUNEDIN 69KV (0059)	105,574	105,574.00	SUB - EQUIPMENT - SWITCH	SUB - EQUIPMENT - SWITCH	<a href="#">29841</a>
04/24/12 00:14:42	OCCIDENTAL SWIFT CREEK #1 115KV (0260)	0	475.00	SUB - CUSTOMER - INDUSTRIAL	SUB - EQUIPMENT - BREAKER/DIST - BUSHING	<a href="#">29885</a>
05/02/12 12:12:34	ALTAMONTE - MAITLAND 69KV (WO-1)	4,710	4,710.00	LINE - EQUIPMENT - CONDUCTOR/STATIC	LINE - EQUIPMENT - CONDUCTOR/STATIC	<a href="#">29946</a>
05/08/12 17:55:11	CRYSTAL RIVER PL - BRONSON 230KV - CREW88 (CF-1)	366,823	2,755,107.60	LINE - LIGHTNING -	LINE - LIGHTNING -	<a href="#">30012</a>
05/02/12 12:12:34	MAITLAND 69KV (0023)	5,536	5,536.00	LINE - EQUIPMENT - CONDUCTOR/STATIC	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">30094</a>
05/17/12 19:26:31	BARBERVILLE - DELAND WEST 69KV (DWB-1)	0	5,107.70	LINE - WEATHER -	- -	<a href="#">30103</a>
05/24/12 20:31:50	CROSS CITY 69KV (0081)	93,420	93,420.00	SUB - UNKNOWN - INVESTIGATION COMPLETE	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">30212</a>
05/26/12 19:30:13	CROSS CITY 69KV (0081)	99,360	99,360.00	SUB - UNKNOWN - INVESTIGATION COMPLETE	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">30220</a>
06/02/12 23:55:53	SOUTH FORT MEADE 115KV (0360)		73.00	SUB - CUSTOMER - INDUSTRIAL	SUB - CUSTOMER - INDUSTRIAL	<a href="#">30236</a>



<u>Date/Time</u>	<u>Location</u>	<u>Retail CMI</u>	<u>Grid CMI</u>	<u>Initiating Cause</u>	<u>Sustained Cause</u>	<u>Outage ID</u>
06/07/12 19:41:47	DELTONA EAST 115KV (0332)	273,604	273,604.00	LINE - EQUIPMENT - ARRESTER	SUB - EQUIPMENT - BREAKER/DIST - NON PREVENTABLE	<a href="#">30277</a>
06/09/12 15:38:15	BROOKRIDGE - BROOKSVILLE WEST (BBW CKT) 115KV (BBW-1)	0	1,569,710.40	LINE - EQUIPMENT - INSULATOR	RELAY - HUMAN ERROR - SETTING ERROR	<a href="#">30295</a>
05/20/12 08:59:58	REDDICK 69KV (0058)	23,693	23,693.00	SUB - EQUIPMENT - OTHER	SUB - EQUIPMENT - OTHER	<a href="#">30328</a>
06/12/12 08:31:30	HIGHLANDS 69KV (0214)	272,153	272,153.00	SUB - EQUIPMENT - BREAKER/DIST - BUSHING	SUB - EQUIPMENT - BREAKER/DIST - BUSHING	<a href="#">30342</a>
06/14/12 08:15:11	HAINES CREEK - TAVARES SEC 69KV (HCT-1)	0	90,439.40	SUB - ANIMAL - BIRD - DAMAGE	SUB - ANIMAL - BIRD - DAMAGE	<a href="#">30371</a>
04/27/12 14:51:34	BABSON PARK 69KV (0283)	76,060	76,060.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	SUB - EQUIPMENT - TRANSFORMER - WINDING	<a href="#">30384</a>
06/16/12 04:56:06	FT WHITE - JASPER 69KV (JF-1)	0	65,750.10	LINE - TREE - NON-PREVENTABLE	LINE - TREE - NON-PREVENTABLE	<a href="#">30390</a>
06/01/12 05:16:45	SEVEN SPRINGS 230KV (0225)	135,332	135,332.00	LINE - CUSTOMER - DISTRIBUTION	RELAY - EQUIPMENT - RELAY PROBLEM	<a href="#">30404</a>
02/19/12 15:26:29	LAKE PLACID 69KV (0176)	89,713	89,713.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">30405</a>
03/25/12 13:48:18	WELCH ROAD 230KV (0312)	221	221.00	LINE - CUSTOMER - MUNICIPALITY	SUB - EQUIPMENT - BREAKER/DIST - OTHER	<a href="#">30406</a>
06/06/12 13:29:00	SEMINOLE ASPHALT 69KV (0275)	1,707	1,707.00	SUB - UNKNOWN - INVESTIGATION COMPLETE	RELAY - EQUIPMENT - EXTERNAL CONTROL SCADA	<a href="#">30407</a>
03/12/12 09:20:56	WEWAHOOTEE 69KV (0150)		64.00	SUB - ANIMAL - BIRD - DAMAGE	SUB - ANIMAL - BIRD - DAMAGE	<a href="#">30409</a>
04/01/12 09:13:28	MYRTLE LAKE 230KV (0394)	90,712	90,712.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">30410</a>
04/05/12 08:53:26	TURNER PLANT 115KV (0501)	68,544	68,544.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	SUB - EQUIPMENT - BREAKER/DIST - ELECTRICAL	<a href="#">30414</a>
04/30/12 07:32:09	U.C.F. 69KV (0200)	108,446	108,446.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">30426</a>
05/09/12 14:04:20	REEDY LAKE 69KV (0049)	1,386	1,386.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	RELAY - EQUIPMENT - RTU FAILURE	<a href="#">30427</a>
05/14/12 15:43:55	HOLOPAW 230KV (0161)	4,529	4,529.00	LINE - PUBLIC INTERFERENCE - VEHICLE	RELAY - OTHER - SYSTEM OPERATION	<a href="#">30429</a>
06/20/12 15:50:04	DAVENPORT 69KV (0086)	219,146	219,146.00	LINE - EQUIPMENT - CONDUCTOR/STATIC	LINE - EQUIPMENT - CONDUCTOR/STATIC	<a href="#">30430</a>
05/15/12 02:54:12	KELLER ROAD 69KV (0003)	2,734	2,734.00	LINE - EQUIPMENT - CONDUCTOR/STATIC	RELAY - HUMAN ERROR - INCORRECT SETTING APPLIED	<a href="#">30437</a>

<u>Date/Time</u>	<u>Location</u>	<u>Retail CMI</u>	<u>Grid CMI</u>	<u>Initiating Cause</u>	<u>Sustained Cause</u>	<u>Outage ID</u>
05/17/12 08:38:53	ROSS PRAIRIE 230KV (0407)	40,209	40,209.00	SUB - EQUIPMENT - TRANSFORMER - WINDING	SUB - EQUIPMENT - TRANSFORMER - WINDING	<a href="#">30450</a>
06/24/12 18:30:26	SOUTH FORT MEADE 115KV (0360)		84.00	SUB - CUSTOMER - INDUSTRIAL	SUB - CUSTOMER - INDUSTRIAL	<a href="#">30475</a>
06/24/12 18:34:23	LITTLE PAYNE CREEK #1 69KV (0287)		80.00	SUB - CUSTOMER - INDUSTRIAL	SUB - CUSTOMER - INDUSTRIAL	<a href="#">30476</a>
05/11/12 06:13:21	EUSTIS 69KV (0313)	5,562	5,562.00	SUB - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - ELECTRICAL	<a href="#">30499</a>
05/26/12 06:55:00	ORANGE BLOSSOM 69KV (0396)	37,216	37,216.00	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	SUB - CUSTOMER - DISTRIBUTION	<a href="#">30509</a>
03/04/12 03:55:00	INGLIS 115KV (0037)	89,694	89,694.00	SUB - CUSTOMER - DISTRIBUTION	RELAY - HUMAN ERROR - OTHER	<a href="#">30530</a>
05/20/12 08:28:00	INGLIS 115KV (0037)	55,754	55,753.50	SUB - CUSTOMER - DISTRIBUTION	RELAY - HUMAN ERROR - OTHER	<a href="#">30533</a>
06/05/12 19:53:47	INGLIS 115KV (0037)	38,907	38,907.00	SUB - CUSTOMER - DISTRIBUTION	RELAY - HUMAN ERROR - OTHER	<a href="#">30536</a>
06/29/12 09:01:22	DELAND WEST - UMATILLA 69KV (ED-2)	0	73,042.20	LINE - PUBLIC INTERFERENCE - VEHICLE	LINE - PUBLIC INTERFERENCE - VEHICLE	<a href="#">30557</a>
07/07/12 17:22:50	BROOKRIDGE - TWIN COUNTY RANCH 115KV - CLEARWATER (CRB-1)	53,144	234,692.00	LINE - LIGHTNING -	LINE - EQUIPMENT - CONDUCTOR/STATIC	<a href="#">30647</a>
07/16/12 19:35:33	HIGH SPRINGS - HULL ROAD 69KV (GH-1)	0	8,638.80	LINE - UNKNOWN - UNDER INVESTIGATION	- -	<a href="#">30724</a>
07/17/12 20:54:00	NORALYN #1 69KV (0030)	579	579.00	LINE - CUSTOMER - INDUSTRIAL	SUB - EQUIPMENT - FUSE	<a href="#">30760</a>
07/18/12 21:02:05	GA PACIFIC - INGLIS 69KV (IS-1)	40,635	44,741.40	LINE - TREE - NON-PREVENTABLE	LINE - EQUIPMENT - CROSSARM	<a href="#">30771</a>
07/10/12 13:04:27	CROSS CITY 69KV (0081)	48,496	48,496.00	SUB - EQUIPMENT - BREAKER/DIST - NON PREVENTABLE	SUB - EQUIPMENT - BREAKER/DIST - NON PREVENTABLE	<a href="#">30777</a>
06/20/12 07:47:24	KENNETH 115KV (0174)	65,826	65,826.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">30779</a>
07/25/12 13:19:46	LOCKHART 230KV (0385)	30,308	30,308.00	SUB - EQUIPMENT - OTHER	RELAY - HUMAN ERROR - SETTING ERROR	<a href="#">30849</a>
07/21/12 19:45:39	NORTHEAST 230KV (0077)	878,536	878,536.00	SUB - HUMAN ERROR - EQUIPMENT MISAPPLICATION	SUB - EQUIPMENT - BREAKER	<a href="#">30856</a>
07/21/12 19:36:47	NORTHEAST 230KV (0077)	49,436	49,436.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - PREVENTABLE	<a href="#">30863</a>
07/12/12 17:50:00	JENNINGS 69KV (0075)	118,783	118,783.00	SUB - LIGHTNING -	SUB - EQUIPMENT - REGULATOR - OTHER	<a href="#">30872</a>
07/28/12 07:58:19	G. E. ALACHUA 69KV (0160)	0	3,671.00	SUB - ANIMAL - SQUIRREL	SUB - EQUIPMENT - BREAKER/DIST - TRIP COIL	<a href="#">30878</a>

<u>Date/Time</u>	<u>Location</u>	<u>Retail CMI</u>	<u>Grid CMI</u>	<u>Initiating Cause</u>	<u>Sustained Cause</u>	<u>Outage ID</u>
07/30/12 08:19:00	CRYSTAL RIVER EAST - INGLIS CKT1 115KV (IT-CKT1)	0	23,437.00	SUB - EQUIPMENT - TRANSFORMER - WINDING	- -	<a href="#">30888</a>
07/11/12 16:16:38	LARGO 230KV (0123)	12,906	12,906.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - OTHER	<a href="#">30907</a>
07/14/12 11:50:02	ELFERS 115KV (0197)	112,173	112,173.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - ELECTRICAL	<a href="#">30909</a>
07/11/12 15:31:32	ELFERS 115KV (0197)	44,786	44,786.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - PREVENTABLE	<a href="#">30912</a>
07/17/12 14:39:20	SEVEN SPRINGS 230KV (0225)	15,780	15,780.00	LINE - CUSTOMER - DISTRIBUTION	RELAY - EQUIPMENT - RECLOSING	<a href="#">30923</a>
07/30/12 16:43:28	SHINGLE CREEK 69KV (0336)	74,046	74,046.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">30959</a>
07/23/12 15:05:07	LAKE PLACID NORTH 69KV (0476)	15,893	15,893.00	LINE - UNKNOWN - UNDER INVESTIGATION	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">30963</a>
07/28/12 19:27:34	ALACHUA 69KV (0110)	1,400	1,400.00	SUB - EQUIPMENT - SWITCH	SUB - EQUIPMENT - SWITCH	<a href="#">30964</a>
05/28/12 19:38:00	INGLIS 115KV (0037)	74,462	74,462.00	SUB - CUSTOMER - DISTRIBUTION	RELAY - HUMAN ERROR - OTHER	<a href="#">30973</a>
05/25/12 09:15:00	INGLIS 115KV (0037)	54,854	54,854.00	SUB - CUSTOMER - DISTRIBUTION	RELAY - HUMAN ERROR - OTHER	<a href="#">30974</a>
08/09/12 17:09:00	KELLY PARK 69KV (0384)	24,152	24,152.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	SUB - EQUIPMENT - FUSE	<a href="#">30987</a>
08/15/12 11:58:42	PERRY 230KV (0042)	0	294,513.90	SUB - EQUIPMENT - BREAKER/DIST - BUSHING	SUB - EQUIPMENT - PT	<a href="#">31014</a>
08/16/12 13:56:16	LAKE WEIR - CENTRAL TOWER CEC 69KV RADIAL (LC-1)	0	10,216.00	LINE - WEATHER -	RELAY - HUMAN ERROR - SETTING ERROR	<a href="#">31029</a>
07/23/12 04:59:39	BROOKSVILLE 115KV (0026)	71,052	71,052.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">31097</a>
08/09/12 21:59:26	CLERMONT 69KV (0316)	101,848	101,848.00	SUB - EQUIPMENT - BREAKER/DIST - ELECTRICAL	- -	<a href="#">31103</a>
07/21/12 18:02:52	PINE RIDGE 115KV (0440)	239,129	239,129.00	SUB - ANIMAL - SQUIRREL	SUB - EQUIPMENT - TRANSFORMER - ARRESTER	<a href="#">31107</a>
08/30/12 17:59:35	TARPON SPRINGS 115KV (0019)	105,774	105,774.00	LINE - CUSTOMER - DISTRIBUTION	RELAY - HUMAN ERROR - EQUIPMENT MISAPPLICATION	<a href="#">31142</a>
08/05/12 13:06:55	BELLEAIR 69KV (0055)	155,282	155,282.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - ELECTRICAL	<a href="#">31143</a>

<u>Date/Time</u>	<u>Location</u>	<u>Retail CMI</u>	<u>Grid CMI</u>	<u>Initiating Cause</u>	<u>Sustained Cause</u>	<u>Outage ID</u>
09/16/12 09:38:08	TAYLOR AVENUE 69KV (0222)	444,409	444,409.00	SUB - HUMAN ERROR - EQUIPMENT MISAPPLICATION	SUB - EQUIPMENT - BREAKER/DIST - BUSHING	<a href="#">31227</a>
09/02/12 04:02:10	ANCLOTE PLANT 230KV (0183)	140,719	140,719.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - PROTECTION/CONTROL	<a href="#">31228</a>
08/10/12 07:10:31	ALDERMAN 115KV (0249)	84,667	84,667.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">31230</a>
09/27/12 10:18:00	INGLIS MINING 115KV (0395)		63.00	SUB - UNKNOWN - UNDER INVESTIGATION	RELAY - EQUIPMENT - OTHER	<a href="#">31348</a>
09/29/12 15:09:08	ARCHER - GINNIE 230KV (FO-1)	0	10,657.80	LINE - EQUIPMENT - CONNECTOR	LINE - EQUIPMENT - CONNECTOR	<a href="#">31359</a>
09/29/12 11:10:40	APOPKA SOUTH 69KV (0216)	104,432	104,432.00	LINE - EQUIPMENT - CONDUCTOR/STATIC	LINE - HUMAN ERROR - EQUIPMENT MISAPPLICATION	<a href="#">31375</a>
10/02/12 05:19:26	NEWBERRY - TRENTON 69KV (NT-1)	624	18,335.00	LINE - UNKNOWN - UNDER INVESTIGATION	LINE - EQUIPMENT - POLE GROUND	<a href="#">31380</a>
06/29/12 09:24:20	CABBAGE ISLAND 69KV (0306)	47,238	47,238.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">31414</a>
07/05/12 16:54:12	DELAND EAST 115KV (0145)	7,511	7,511.00	LINE - TREE - NON-PREVENTABLE	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">31416</a>
10/01/12 20:22:57	ALACHUA 69KV (0110)	1,404	1,404.00	SUB - OTHER - PLANNED	SUB - OTHER - PLANNED	<a href="#">31442</a>
09/19/12 11:47:50	SAFETY HARBOR 115KV (0238)	50,932	50,932.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">31450</a>
10/08/12 13:51:42	PIEDMONT 230KV (0064)	438,446	438,446.00	LINE - LIGHTNING -	SUB - EQUIPMENT - BREAKER	<a href="#">31469</a>
09/27/12 20:17:07	MCINTOSH 69KV (0398)	103,185	103,185.00	SUB - EQUIPMENT - BREAKER/DIST - ELECTRICAL	RELAY - HUMAN ERROR - WIRING ERROR	<a href="#">31494</a>
09/30/12 16:53:32	MCINTOSH 69KV (0398)	124,844	124,844.00	RELAY - HUMAN ERROR - WIRING ERROR	- -	<a href="#">31495</a>
10/30/12 15:12:00	INGLIS MINING 115KV (0395)		45.00	SUB - CUSTOMER - INDUSTRIAL	RELAY - EQUIPMENT - OTHER	<a href="#">31621</a>
09/27/12 17:18:39	ZUBER 69KV (0274)	156,660	156,660.00	SUB - CUSTOMER - DISTRIBUTION	RELAY - EQUIPMENT - OTHER	<a href="#">31703</a>
10/30/12 11:04:06	SANTOS 69KV (0347)	45,144	45,144.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">31705</a>
10/21/12 14:01:54	MAXIMO 115KV (0029)	12,339	12,339.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">31767</a>



<u>Date/Time</u>	<u>Location</u>	<u>Retail CMI</u>	<u>Grid CMI</u>	<u>Initiating Cause</u>	<u>Sustained Cause</u>	<u>Outage ID</u>
11/08/12 07:02:14	PALM HARBOR 230KV (0079)	55,734	55,734.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">31768</a>
11/10/12 10:19:33	FIFTY-FIRST STREET 230KV (0012)	101,384	101,384.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/TRANS - ELECTRICAL	<a href="#">31769</a>
10/18/12 11:08:18	NORTHEAST 230KV (0077)	1,962	1,962.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">31770</a>
10/18/12 11:28:11	NORTHEAST 230KV (0077)	981	981.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">31771</a>
11/19/12 16:50:57	DUNEDIN 69KV (0059)	106,293	106,293.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - ELECTRICAL	<a href="#">31772</a>
11/14/12 16:39:28	PERRY 230KV (0042)	988	988.00	LINE - HUMAN ERROR - OTHER	LINE - HUMAN ERROR - OTHER	<a href="#">31874</a>
06/22/12 16:31:35	DINNER LAKE 69KV (0415)	161,434	161,434.00	LINE - EQUIPMENT - CONDUCTOR/STATIC	LINE - EQUIPMENT - CONDUCTOR/STATIC	<a href="#">31897</a>
06/10/12 21:44:09	MAGNOLIA RANCH 69KV (0377)	86,056	86,056.00	LINE - LIGHTNING -	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">31898</a>
06/16/12 07:09:09	OVIEDO 69KV (0303)	96,840	96,840.00	LINE - TREE - NON-PREVENTABLE	SUB - EQUIPMENT - BREAKER/DIST - ELECTRICAL	<a href="#">31899</a>
07/21/12 19:04:21	KELLY PARK 69KV (0384)	16,112	16,112.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	SUB - EQUIPMENT - BREAKER/DIST - PREVENTABLE	<a href="#">31901</a>
12/08/12 09:08:22	SKY LAKE 230KV (0212)	211,890	211,890.00	LINE - EQUIPMENT - INSULATOR	RELAY - HUMAN ERROR - INCORRECT SETTING APPLIED	<a href="#">31912</a>
12/12/12 14:05:59	BAYVIEW - TRI CITY 115KV (HD-2)	87,715	87,715.00	SUB - UNKNOWN - UNDER INVESTIGATION	SUB - UNKNOWN - UNDER INVESTIGATION	<a href="#">31938</a>
12/15/12 07:08:37	DUNNELLON TOWN - RAINBOW LK EST SEC 69KV RADIAL (DR-1)	0	235,635.00	LINE - EQUIPMENT - CONDUCTOR/STATIC	LINE - EQUIPMENT - CONDUCTOR/STATIC	<a href="#">31952</a>
08/05/12 14:45:51	CASSELBERRY 69KV (0195)	210	210.00	LINE - TREE - NON-PREVENTABLE	RELAY - EQUIPMENT - RTU FAILURE	<a href="#">32014</a>
08/24/12 17:05:52	WINDERMERE 230KV (0310)	11,096	11,096.00	LINE - EQUIPMENT - CONDUCTOR/STATIC	LINE - EQUIPMENT - CONDUCTOR/STATIC	<a href="#">32017</a>
08/30/12 08:28:14	WEST DAVENPORT 69KV (0380)	52,948	52,948.00	SUB - EQUIPMENT - BREAKER/DIST - ELECTRICAL	SUB - EQUIPMENT - BREAKER/DIST - ELECTRICAL	<a href="#">32018</a>
09/05/12 14:07:19	CYPRESSWOOD 69KV (0267)	85,444	85,444.00	LINE - EQUIPMENT - ARRESTER	SUB - EQUIPMENT - BREAKER/TRANS - ELECTRICAL	<a href="#">32019</a>

<u>Date/Time</u>	<u>Location</u>	<u>Retail CMI</u>	<u>Grid CMI</u>	<u>Initiating Cause</u>	<u>Sustained Cause</u>	<u>Outage ID</u>
12/26/12 10:54:08	DRIFTON 115KV (0095)	0	639,215.60	LINE - TREE - NON-PREVENTABLE	LINE - TREE - NON-PREVENTABLE	<a href="#">32020</a>
12/12/12 06:08:11	CHAMPIONS GATE 69KV (0358)	4,212	4,212.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">32022</a>
12/13/12 14:50:26	CENTRAL PLAZA 115KV (0057)	66,164	66,164.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - UNKNOWN	<a href="#">32024</a>
09/18/12 12:02:35	OCOEE 69KV (0169)	131,286	131,286.00	LINE - LIGHTNING -	SUB - EQUIPMENT - BREAKER/DIST - ELECTRICAL	<a href="#">32026</a>
09/19/12 07:34:50	RIO PINAR 230KV (0148)	94,046	94,046.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">32027</a>
10/03/12 16:48:14	POINCIANA NORTH 69KV (0502)	55,406	55,406.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	RELAY - HUMAN ERROR - SETTING ERROR	<a href="#">32028</a>
10/26/12 16:25:38	DESOTO CITY 69KV (0031)	16,872	16,872.00	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	SUB - EQUIPMENT - BREAKER/DIST - MECHANICAL	<a href="#">32031</a>
10/25/12 16:13:28	DELAND 69KV (0301)	37,278	37,278.00	LINE - UNKNOWN - INVESTIGATION COMPLETE	SUB - EQUIPMENT - BREAKER/DIST - ELECTRICAL	<a href="#">32033</a>
12/27/12 01:39:37	LAKE EMMA 230KV (0218)	54,164	54,164.00	LINE - UNKNOWN - UNDER INVESTIGATION	SUB - EQUIPMENT - BREAKER/DIST - ELECTRICAL	<a href="#">32038</a>
11/26/12 04:26:36	HOLDER 230KV (0203)	114,219	114,219.00	LINE - PUBLIC INTERFERENCE - VEHICLE	SUB - EQUIPMENT - BREAKER/DIST - ELECTRICAL	<a href="#">32042</a>
12/28/12 23:10:55	CITRUSVILLE 69KV (0072)	436	436.00	LINE - CUSTOMER - DISTRIBUTION	RELAY - MISOPERATION -	<a href="#">32078</a>
11/27/12 05:34:51	MYRTLE LAKE 230KV (0394)	1,640	1,640.00	SUB - EQUIPMENT - BREAKER/TRANS - MECHANICAL	- -	<a href="#">32096</a>
12/10/12 15:32:05	MCINTOSH 69KV (0398)	42,796	42,796.00	SUB - EQUIPMENT - BREAKER/DIST - PROTECTION/CONTROL	SUB - EQUIPMENT - BREAKER/DIST - PROTECTION/CONTROL	<a href="#">32097</a>
12/15/12 07:08:44	RAINBOW SPRINGS 69KV (0423)	242,801	242,801.00	LINE - EQUIPMENT - CONDUCTOR/STATIC	- -	<a href="#">32098</a>
12/17/12 09:48:18	LEBANON 69KV (0141)	8,411	8,411.00	LINE - CUSTOMER - DISTRIBUTION	SUB - EQUIPMENT - BREAKER	<a href="#">32099</a>
<b>Totals:</b>		<b>10,435,759.50</b>	<b>16,650,013.80</b>			

# **ATTACHEMENT B**

## Florida PSC Report - Exceptions Only

(PEF Transmission Outages - Major Events Excluded)

For Reporting Year: 2012



Source of Data - TOMS

Data Current as of:

2/15/2013

<u>Date/Time</u>	<u>Location</u>	<u>Retail CMI</u>	<u>Grid CMI</u>	<u>Initiating Cause</u>	<u>Sustained Cause</u>	<u>Outage ID</u>
03/04/12 14:03:59	BARBERVILLE - DELAND WEST 69KV (DWB-1)	0	584,970.00	LINE - PLANNED - EMERGENT	LINE - PLANNED - EMERGENT	<a href="#">29530</a>
06/27/12 17:10:08	CROSSROADS - KENNETH UG 115KV (UGKP-1)	426,402	426,402.00	LINE - WEATHER - MAJOR STORM	RELAY - MISOPERATION -	<a href="#">30552</a>

**Totals:**

**426,402**

**1,011,372.00**



# ATTACHEMENT C

**Summary of Severe Weather Dates**
**2012**

Dates	Type of Weather Event	Strength (Wind Speeds/surge-flood levels)	Locations affected	Source of Metrological Information	Performance of Overhead and Underground Systems
May 27 - May 29	Tropical Storm Beryl	35 to 45 mph	APOPKA	National Weather Service	See response to
			DELAND		Section (d) - pg. 10 of
			JAMESTOWN		Reliability Report
			LONGWOOD		
			INVERNESS		
			MONTICELLO		
			OCALA		
			BUENA VISTA		
			CLERMONT		
			HIGHLANDS		
			LAKE WALES		
			SE ORLANDO		
			WINTER GARDEN		
			CLEARWATER		
			SEVEN SPRINGS		
			ST. PETERSBURG		
			WALSINGHAM		
			ZEPHYRHILLS		
Jun 24 - Jun 27	Tropical Storm Debby	35 to 45 mph	APOPKA	National Weather Service	See response to
			DELAND		Section (d) - pg. 10 of
			JAMESTOWN		Reliability Report
			LONGWOOD		
			INVERNESS		
			MONTICELLO		
			OCALA		
			BUENA VISTA		
			CLERMONT		
			HIGHLANDS		
			LAKE WALES		
			SE ORLANDO		
			WINTER GARDEN		
			CLEARWATER		
			SEVEN SPRINGS		
			ST. PETERSBURG		
			WALSINGHAM		
			ZEPHYRHILLS		
Aug 26 to Aug 28	Tropical Storm Isaac	35 to 40 mph	APOPKA	National Weather Service	See response to
			DELAND		Section (d) - pg. 10 of
			JAMESTOWN		Reliability Report
			LONGWOOD		
			INVERNESS		
			MONTICELLO		
			OCALA		
			BUENA VISTA		
			CLERMONT		
			HIGHLANDS		
			LAKE WALES		
			SE ORLANDO		
			WINTER GARDEN		
			CLEARWATER		
			SEVEN SPRINGS		
			ST. PETERSBURG		
			WALSINGHAM		
			ZEPHYRHILLS		
Oct 26 to Oct 29	Hurricane Sandy	75 to 80 mph	APOPKA	National Weather Service	See response to
			DELAND		Section (d) - pg. 10 of
			JAMESTOWN		Reliability Report
			LONGWOOD		
			INVERNESS		
			MONTICELLO		
			OCALA		
			BUENA VISTA		
			CLERMONT		
			HIGHLANDS		
			LAKE WALES		
			SE ORLANDO		
			WINTER GARDEN		
			CLEARWATER		
			SEVEN SPRINGS		
			ST. PETERSBURG		
			WALSINGHAM		
			ZEPHYRHILLS		
Dec 10	Tornado	Unknown Wind Speed	APOPKA	National Weather Service	See response to
			DELAND		Section (d) - pg. 10 of
					Reliability Report



## Distribution

### Exclusion Summary - 2012

[illegible]

# **ATTACHEMENT D**



CAUSES OF OUTAGE EVENTS – ADJUSTED															
Utility Name: Progress Energy Florida Years: 2008 to 2012															
	2012			2011			2010			2009			2008		
Cause (a)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
1. Storm	3,826	102.9	85.3	4,470	130.6	114.3	3,711	106.6	90.3	4,405	121.5	95.0	3,538	100.7	86.1
2. UG Secondary/Serv	3,642	168.4	183.5	3,841	163.3	155.4	3,819	150.7	163.0	4,477	169.0	188.2	4,761	171.4	179.9
3. Animal and Birds	6,637	71.0	58.6	7,686	70.0	58.7	5,910	66.1	54.4	5,049	68.0	56.9	5,732	65.8	54.8
4. Unknown	2,909	80.1	56.4	3,429	81.0	63.5	4,595	79.2	60.1	5,582	78.6	63.4	5,472	76.7	63.0
5. Tree-Preventable	3,229	120.1	76.5	4,896	147.5	94.7	5,469	127.6	88.3	4,827	126.1	86.0	3,992	115.3	79.2
6. Defective Equip.	3,122	177.3	76.4	3,296	173.7	68.7	3,681	172.9	69.2	3,718	183.1	71.2	2,991	181.1	72.6
7. Connector Failure	2,892	114.3	89.5	2,905	119.7	80.7	3,078	113.3	78.1	3,244	113.2	80.3	2,982	103.4	71.1
8. UG Primary Cable	2,076	252.2	88.7	2,288	248.9	77.7	2,175	226.5	90.4	2,521	227.7	84.3	2,506	209.2	86.3
9. Tree-Nonpreventable	4,438	150.4	87.0	4,930	176.4	94.5	3,612	140.4	79.6	3,474	149.4	86.3	3,347	130.6	78.1
10. Lightning	980	191.5	78.7	1,093	215.9	96.0	1,073	187.4	76.1	1,525	157.9	82.7	2,217	127.5	81.3
All Other Causes	2,769	129.7	62.2	3,089	129.2	58.9	4,199	125.7	62.1	3,664	22.5	57.6	3,168	112.9	53.9
System Totals:	36,520	129.3	76.8	41,923	137.0	81.4	41,322	124.3	76.1	42,486	129.2	76.8	40,706	119.9	72.3



# **ATTACHEMENT E**



2013 PROGRAM BUDGET

CAPITAL													
	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Annual
SI-AUTO TRANS SWITCH-CAP	-	-	-	-	-	-	-	-	-	-	-	118,734	118,734
SI-AUTOMATION	11,184	22,368	436,169	55,919	11,184	11,184	11,184	158,604	11,184	11,184	11,184	44,697	796,043
SI-CAPACITOR NEW-CAP	-	18,263	18,263	18,263	27,394	18,263	-	-	36,525	9,131	-	-	146,101
SI-CAP REPL-CAP	26,614	186,296	-	186,296	106,369	26,614	79,841	106,455	79,841	53,227	53,227	79,841	984,621
SI-DISC SWITCH-CAP	-	-	-	-	2,842	22,735	29,840	28,419	17,051	-	-	-	100,886
SI-ELECTRONIC RECL-CAP	2,587	2,675	10,612	15,962	2,675	2,675	2,650	2,468	10,675	10,675	-	13,324	76,979
SI-FEEDER STAND-CAP	101,408	405,638	628,730	816,328	872,104	562,818	55,774	55,775	877,185	750,429	481,702	40,564	5,648,456
SI-HYDRAULIC RECLOSER REP	98,607	130,915	112,170	106,076	216,262	221,303	255,434	302,075	241,101	501,576	216,870	87,635	2,490,024
SI-NETWORK REPL-CAP	-	-	-	-	-	-	-	-	-	-	-	299,741	299,741
SI-NEW ABB RECL-CAP	-	49,322	49,322	73,983	-	73,983	-	-	123,304	24,661	-	-	394,574
SI-OH SECTION-CAP	-	8,331	-	33,325	13,885	11,108	22,217	11,108	19,440	13,885	6,943	4,166	144,409
SI-POLE REINF-CAP	-	-	-	125,197	-	-	-	104,331	-	41,732	146,063	-	417,324
SI-POLE REPL CLOSED	258,674	264,932	260,760	260,759	254,501	246,154	241,982	246,154	241,982	252,412	239,896	171,056	2,939,262
SI-POLE REPL OPEN	944,888	974,263	969,367	969,371	964,475	935,104	947,344	959,584	971,823	979,167	969,376	653,594	11,238,355
SI-SMALL WIRE UP-CAP	98,081	255,467	337,026	337,026	355,970	323,518	307,599	39,646	119,263	304,547	210,858	210,858	2,899,858
SI-STBPLRMVL	94,070	94,070	94,070	94,070	94,070	94,070	94,070	94,070	94,070	94,070	94,070	94,070	1,128,837
SI-STORM HARD-CAP	327,787	571,367	675,441	688,933	619,254	585,066	465,073	326,677	458,298	458,298	436,506	336,648	5,949,346
SI-SUBAQUEOUS CABLE	-	-	-	-	-	-	595,819	595,819	589,810	-	-	-	1,781,449
SI-TARGETRELIABILITY	-	-	-	76,385	203,694	178,232	25,462	-	76,385	61,108	5,092	-	626,358
SI-TRIP1PHMODEF	147,880	147,880	147,880	147,880	147,880	147,880	147,880	147,880	147,880	147,880	147,880	147,880	1,774,561
SI-TRIP3PHMODEF	253,976	270,908	253,976	270,908	253,976	270,908	253,976	253,976	253,976	253,976	253,976	253,976	3,098,513
SI-TRIP REPL 1PH-CAP	199,691	199,691	199,691	325,293	286,649	254,443	183,587	186,808	170,703	151,377	148,157	144,937	2,451,026
SI-TRIP REPL 3PH-CAP	254,232	333,679	333,679	333,679	333,679	270,121	238,342	206,563	222,453	190,674	143,005	143,005	3,003,110
SI-UG CABLE LG-CAP	-	-	-	-	-	-	106,942	79,598	93,779	57,451	89,873	-	427,644
SI-UG CABLE SM-CAP	752,110	752,423	752,110	752,110	752,110	752,293	752,110	752,110	751,783	751,783	855,108	751,783	9,127,831
SI-UG CABLE TEST/REHAB	276,608	276,608	276,608	276,608	276,608	-	-	-	414,913	414,913	414,913	394,167	3,021,947
SI-UG SWITCHGEAR REPL	-	-	-	-	-	-	-	-	-	-	-	273,928	273,928
SI-VOLTAGE REGULATORS	3,852	7,704	-	-	-	9,630	-	11,556	3,852	-	1,926	1,926	40,446
Sum:	3,852,247	4,972,801	5,555,874	5,964,371	5,795,581	5,018,101	4,817,124	4,669,676	6,027,277	5,534,157	4,926,625	4,266,531	61,400,363

O&M													
	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Sum:
ENV-ENVIRONMENTAL	103,201	123,542	190,322	190,322	198,037	225,688	190,322	190,322	190,322	190,322	190,322	190,322	2,173,047
SI-ATS INSPECTIONS	-	-	-	28,362	-	-	2,987	28,362	-	-	-	34,002	93,712
SI-AUTOMATION	1,297	1,297	25,942	1,297	1,297	25,942	2,594	2,594	25,942	1,297	1,297	72,600	163,398
SI-CAP INSPECT-O&M	16,190	45,331	53,564	27,520	18,838	10,889	14,128	11,622	24,869	20,455	19,279	16,485	279,169
SI-CAP MAINT-O&M	15,261	15,662	17,671	14,457	12,251	10,845	8,835	15,261	16,666	15,261	14,658	10,842	167,671
SI-FAULT INDICATOR	-	-	-	-	-	-	62,714	-	-	62,714	-	7,335	132,763
SI-FEEDER STAND-O&M	52,492	120,190	169,408	142,539	173,548	131,013	45,971	24,596	154,796	106,282	84,744	29,547	1,235,127
SI-IR SCAN INSP-O&M	-	-	-	-	-	-	25,703	26,988	-	-	-	-	52,690
SI-IR SCAN MAINT-O&M	-	2,578	4,759	198	-	-	-	-	49,180	44,817	38,273	17,649	157,455
SI-NETWORK MAINT-O&M	19,280	19,280	19,280	21,423	21,423	27,849	27,849	23,565	21,423	21,423	21,423	19,280	263,498
SI-POLE INSPECT-O&M	129,026	129,026	129,026	129,026	129,026	129,026	129,026	129,026	129,026	129,026	31,180	(66,667)	1,254,772
SI-POLE TREAT-O&M	33,724	33,724	33,724	33,724	33,724	33,724	24,620	33,724	33,724	33,724	16,862	-	345,000
SI-RECLOSR MAINT-O&M	-	-	-	181,337	-	-	-	2,608	181,337	-	-	-	365,281
SI-SMALL WIRE UP-CAP	3,387	8,811	11,627	11,627	12,282	11,161	10,611	1,369	4,109	10,506	7,271	7,271	100,033
SI-STORM HARD-CAP	2,918	5,082	6,001	6,120	5,505	5,203	4,130	2,908	4,074	4,074	3,881	3,000	52,897
SI-SUBAQUEOUS CABLE OM	-	27,127	27,127	27,127	-	27,127	-	-	-	-	-	-	108,507
SI-SWITCHGEAR MAINT	-	-	-	-	-	-	-	-	88,543	-	-	-	88,543
SI-TRIP1PHREMED-O&M	129,829	129,829	129,829	129,829	129,829	129,829	129,829	129,829	129,829	129,829	129,829	129,829	1,557,952
SI-TRIP3PHREMED-O&M	75,002	80,001	75,002	80,001	75,002	80,001	75,002	75,002	75,002	75,002	75,002	75,002	915,021
SI-VOLTAGE REG INSP	-	-	-	-	-	-	-	-	-	42,917	-	-	42,917
Sum:	581,608	741,481	893,284	1,024,909	810,762	848,298	754,323	697,776	1,128,842	887,649	634,023	546,498	9,549,453

# **ATTACHEMENT F**



SYSTEM RELIABILITY INDICES – ADJUSTED																									
Utility Name: Progress Energy Florida Year: 2008 to 2012																									
	2012					2011					2010					2009					2008				
District or Service Area (a)	SAIDI (b)	CAIDI (c)	SAIFI (d)	MAIFle (e)	CEMI5 (f)	SAIDI (b)	CAIDI (c)	SAIFI (d)	MAIFle (e)	CEMI5 (f)	SAIDI (b)	CAIDI (c)	SAIFI (d)	MAIFle (e)	CEMI5 (f)	SAIDI (b)	CAIDI (c)	SAIFI (d)	MAIFle (e)	CEMI5 (f)	SAIDI (b)	CAIDI (c)	SAIFI (d)	MAIFle (e)	CEMI5 (f)
North Coastal Region	135.7	91.5	1.48	8.8	3.46%	201.2	106.6	1.89	9.1	4.77%	145.1	88.1	1.65	8.5	4.33%	136.1	87.9	1.55	9.8	2.60%	124.9	82.5	1.51	10.5	3.20%
South Coastal Region	58.5	66.0	0.89	10.3	0.34%	70.3	71.5	0.98	12.7	0.38%	86.0	71.1	1.21	13.2	0.81%	75.7	68.0	1.11	11.5	0.38%	58.9	64.1	0.92	12.3	0.34%
North Central Region	79.3	80.7	0.98	9.6	0.82%	86.4	81.7	1.06	11.0	0.69%	101.4	81.4	1.25	11.4	1.21%	80.8	83.0	0.97	11.1	0.53%	82.1	72.5	1.13	10.1	1.38%
South Central Region	62.9	78.6	0.80	7.6	0.49%	60.7	72.8	0.83	8.5	0.43%	73.5	70.7	1.04	8.5	0.66%	71.0	78.9	0.90	9.7	0.64%	73.7	77.0	0.96	10.5	0.42%
System Averages	73.4	76.8	0.96	9.3	0.85%	86.9	81.4	1.07	10.8	0.98%	93.3	76.1	1.23	11.1	1.28%	82.8	76.8	1.08	10.8	0.74%	75.7	72.3	1.05	11.1	0.94%

# **ATTACHEMENT G**





## 2012 Summer Feeder Peaks

Load Area	NAME	BANK	FEEDER NAME	PLANNER PEAK MVA
SOUTH COASTAL	ALDERMAN	1	C5000	9.10
SOUTH COASTAL	ALDERMAN	1	C5001	5.21
SOUTH COASTAL	ALDERMAN	1	C5003	7.47
SOUTH COASTAL	ALDERMAN	2	C5008	8.90
SOUTH COASTAL	ALDERMAN	2	C5009	11.00
SOUTH COASTAL	ALDERMAN	2	C5013	7.25
SOUTH COASTAL	ALDERMAN	3	C5011	9.83
SOUTH COASTAL	ALDERMAN	3	C5012	10.44
SOUTH COASTAL	ANCLOTE	7	C4206	4.93
SOUTH COASTAL	ANCLOTE	7	C4207	10.38
SOUTH COASTAL	ANCLOTE	8	C4201	8.83
SOUTH COASTAL	ANCLOTE	8	C4202	6.73
SOUTH COASTAL	ANCLOTE	8	C4203	9.04
SOUTH COASTAL	BAYBORO PLANT	2	X0009	6.76
SOUTH COASTAL	BAYBORO PLANT	1	X0010	3.30
SOUTH COASTAL	BAYBORO PLANT	1	X0012	0.00
SOUTH COASTAL	BAYBORO PLANT	1	X0015	8.00
SOUTH COASTAL	BAYBORO PLANT	1	X0017	6.00
SOUTH COASTAL	BAYBORO PLANT	1	X0019	9.70
SOUTH COASTAL	BAYBORO PLANT	1	X0020	6.20
SOUTH COASTAL	BAYBORO PLANT	2	X0013	3.20
SOUTH COASTAL	BAYBORO PLANT	2	X0014	0.00
SOUTH COASTAL	BAYBORO PLANT	2	X0016	9.00
SOUTH COASTAL	BAYBORO PLANT	2	X0018	5.70
SOUTH COASTAL	BAYBORO PLANT	2	X0021	8.80
SOUTH COASTAL	BAYVIEW	1	C0651	11.51
SOUTH COASTAL	BAYVIEW	1	C0652	9.08
SOUTH COASTAL	BAYVIEW	1	C0653	8.86
SOUTH COASTAL	BAYVIEW	1	C0654	10.58
SOUTH COASTAL	BAYVIEW	2	C0655	1.57
SOUTH COASTAL	BAYVIEW	2	C0656	8.85
SOUTH COASTAL	BAYVIEW	2	C0657	10.11
SOUTH COASTAL	BAYVIEW	2	C0658	11.46
SOUTH COASTAL	BAYWAY	2	X0096	8.32
SOUTH COASTAL	BAYWAY	2	X0097	11.16
SOUTH COASTAL	BAYWAY	2	X0098	0.00
SOUTH COASTAL	BAYWAY	2	X0099	10.77
SOUTH COASTAL	BAYWAY	2	X0100	3.07
SOUTH COASTAL	BELLEAIR	1	C1002	8.72
SOUTH COASTAL	BELLEAIR	1	C1003	9.02

SOUTH COASTAL	BELLEAIR	1	C1004	2.09
SOUTH COASTAL	BELLEAIR	1	J1001	3.74
SOUTH COASTAL	BELLEAIR	2	C1005	12.10
SOUTH COASTAL	BELLEAIR	2	C1007	6.48
SOUTH COASTAL	BELLEAIR	2	C1008	11.32
SOUTH COASTAL	BROOKER CREEK	1	C5400	8.60
SOUTH COASTAL	BROOKER CREEK	1	C5401	4.00
SOUTH COASTAL	BROOKER CREEK	1	C5402	10.80
SOUTH COASTAL	BROOKER CREEK	2	C5404	6.40
SOUTH COASTAL	BROOKER CREEK	2	C5405	11.20
SOUTH COASTAL	BROOKER CREEK	2	C5406	10.60
SOUTH COASTAL	CENTRAL PLAZA	1	X0262	9.04
SOUTH COASTAL	CENTRAL PLAZA	1	X0266	0.00
SOUTH COASTAL	CENTRAL PLAZA	1	X0268	12.00
SOUTH COASTAL	CENTRAL PLAZA	2	X0263	1.38
SOUTH COASTAL	CENTRAL PLAZA	2	X0265	5.21
SOUTH COASTAL	CENTRAL PLAZA	2	X0267	10.90
SOUTH COASTAL	CLEARWATER	1	C0004	6.58
SOUTH COASTAL	CLEARWATER	1	C0005	11.14
SOUTH COASTAL	CLEARWATER	1	C0006	3.36
SOUTH COASTAL	CLEARWATER	2	C0008	2.66
SOUTH COASTAL	CLEARWATER	2	C0009	2.70
SOUTH COASTAL	CLEARWATER	2	C0010	8.85
SOUTH COASTAL	CLEARWATER	2	C0011	7.88
SOUTH COASTAL	CLEARWATER	3	C0012	11.63
SOUTH COASTAL	CLEARWATER	3	C0013	4.79
SOUTH COASTAL	CLEARWATER	3	C0014	5.97
SOUTH COASTAL	CLEARWATER	3	C0015	7.93
SOUTH COASTAL	CLEARWATER	4	C0016	7.99
SOUTH COASTAL	CLEARWATER	4	C0017	9.40
SOUTH COASTAL	CLEARWATER	4	C0018	1.80
SOUTH COASTAL	CROSS BAYOU	1	J0142	11.50
SOUTH COASTAL	CROSS BAYOU	1	J0143	6.40
SOUTH COASTAL	CROSS BAYOU	1	J0144	2.82
SOUTH COASTAL	CROSS BAYOU	1	J0145	8.60
SOUTH COASTAL	CROSS BAYOU	2	J0146	8.50
SOUTH COASTAL	CROSS BAYOU	2	J0147	10.39
SOUTH COASTAL	CROSS BAYOU	2	J0148	10.14
SOUTH COASTAL	CROSS BAYOU	3	J0140	5.90
SOUTH COASTAL	CROSS BAYOU	3	J0141	11.00
SOUTH COASTAL	CROSS BAYOU	3	J0150	9.72
SOUTH COASTAL	CROSSROADS	1	X0132	8.18
SOUTH COASTAL	CROSSROADS	1	X0133	7.88
SOUTH COASTAL	CROSSROADS	1	X0134	7.55

SOUTH COASTAL	CROSSROADS	2	X0135	8.77
SOUTH COASTAL	CROSSROADS	2	X0136	2.66
SOUTH COASTAL	CROSSROADS	2	X0137	4.32
SOUTH COASTAL	CROSSROADS	2	X0138	7.18
SOUTH COASTAL	CURLEW	1	C4989	8.78
SOUTH COASTAL	CURLEW	1	C4990	6.90
SOUTH COASTAL	CURLEW	1	C4991	11.26
SOUTH COASTAL	CURLEW	2	C4976	6.40
SOUTH COASTAL	CURLEW	2	C4985	5.35
SOUTH COASTAL	CURLEW	2	C4986	11.10
SOUTH COASTAL	CURLEW	3	C4972	7.62
SOUTH COASTAL	CURLEW	3	C4973	9.38
SOUTH COASTAL	CURLEW	3	C4987	7.80
SOUTH COASTAL	CURLEW	3	C4988	9.11
SOUTH COASTAL	DENHAM	1	C0151	8.76
SOUTH COASTAL	DENHAM	1	C0152	10.55
SOUTH COASTAL	DENHAM	1	C0159	6.83
SOUTH COASTAL	DENHAM	2	C0153	9.33
SOUTH COASTAL	DENHAM	2	C0154	5.96
SOUTH COASTAL	DENHAM	2	C0155	8.05
SOUTH COASTAL	DENHAM	3	C0156	9.73
SOUTH COASTAL	DENHAM	3	C0157	10.15
SOUTH COASTAL	DENHAM	3	C0158	10.13
SOUTH COASTAL	DISSTON	1	X0060	10.02
SOUTH COASTAL	DISSTON	1	X0061	4.82
SOUTH COASTAL	DISSTON	1	X0062	11.06
SOUTH COASTAL	DISSTON	1	X0063	10.16
SOUTH COASTAL	DISSTON	2	X0064	8.93
SOUTH COASTAL	DISSTON	2	X0065	2.49
SOUTH COASTAL	DISSTON	2	X0066	10.99
SOUTH COASTAL	DISSTON	2	X0067	8.12
SOUTH COASTAL	DUNEDIN	1	C0102	8.65
SOUTH COASTAL	DUNEDIN	1	C0103	8.55
SOUTH COASTAL	DUNEDIN	2	C0104	8.29
SOUTH COASTAL	DUNEDIN	2	C0106	6.01
SOUTH COASTAL	DUNEDIN	3	C0107	9.56
SOUTH COASTAL	DUNEDIN	3	C0108	7.87
SOUTH COASTAL	EAST CLEARWATER	1	C0900	9.86
SOUTH COASTAL	EAST CLEARWATER	1	C0901	6.20
SOUTH COASTAL	EAST CLEARWATER	1	C0902	9.64
SOUTH COASTAL	EAST CLEARWATER	1	C0903	6.73
SOUTH COASTAL	EAST CLEARWATER	2	C0904	10.53
SOUTH COASTAL	EAST CLEARWATER	2	C0905	7.80
SOUTH COASTAL	EAST CLEARWATER	2	C0906	5.75

SOUTH COASTAL	EAST CLEARWATER	2	C0907	10.81
SOUTH COASTAL	EAST CLEARWATER	3	C0908	9.04
SOUTH COASTAL	EAST CLEARWATER	3	C0909	8.16
SOUTH COASTAL	EAST CLEARWATER	3	C0910	10.93
SOUTH COASTAL	EAST CLEARWATER	3	C0911	8.25
SOUTH COASTAL	ELFERS	1	C0954	4.53
SOUTH COASTAL	ELFERS	1	C0955	9.12
SOUTH COASTAL	ELFERS	1	C0956	6.03
SOUTH COASTAL	ELFERS	1	C0957	9.00
SOUTH COASTAL	ELFERS	2	C0950	7.57
SOUTH COASTAL	ELFERS	2	C0951	6.83
SOUTH COASTAL	ELFERS	2	C0952	6.41
SOUTH COASTAL	ELFERS	2	C0953	6.28
SOUTH COASTAL	FIFTY FIRST STREET	1	X0102	8.10
SOUTH COASTAL	FIFTY FIRST STREET	1	X0104	5.90
SOUTH COASTAL	FIFTY FIRST STREET	1	X0106	3.97
SOUTH COASTAL	FIFTY FIRST STREET	1	X0108	5.97
SOUTH COASTAL	FIFTY FIRST STREET	2	X0101	6.07
SOUTH COASTAL	FIFTY FIRST STREET	2	X0103	7.34
SOUTH COASTAL	FIFTY FIRST STREET	2	X0105	10.55
SOUTH COASTAL	FIFTY FIRST STREET	2	X0107	7.44
SOUTH COASTAL	FLORA-MAR	1	C4000	7.72
SOUTH COASTAL	FLORA-MAR	1	C4001	8.73
SOUTH COASTAL	FLORA-MAR	1	C4002	9.39
SOUTH COASTAL	FLORA-MAR	1	C4003	9.40
SOUTH COASTAL	FLORA-MAR	2	C4006	9.25
SOUTH COASTAL	FLORA-MAR	2	C4007	8.32
SOUTH COASTAL	FLORA-MAR	2	C4008	6.98
SOUTH COASTAL	FLORA-MAR	3	C4009	8.49
SOUTH COASTAL	FORTIETH STREET	1	X0081	5.29
SOUTH COASTAL	FORTIETH STREET	1	X0082	8.50
SOUTH COASTAL	FORTIETH STREET	2	X0083	8.58
SOUTH COASTAL	FORTIETH STREET	2	X0084	7.62
SOUTH COASTAL	FORTIETH STREET	2	X0085	6.24
SOUTH COASTAL	G E PINELLAS	1	J0231	3.80
SOUTH COASTAL	G E PINELLAS	2	J0234	2.30
SOUTH COASTAL	G E PINELLAS	2	J0235	0.00
SOUTH COASTAL	GATEWAY	1	X0111	12.16
SOUTH COASTAL	GATEWAY	1	X0112	2.63
SOUTH COASTAL	GATEWAY	1	X0113	8.79
SOUTH COASTAL	GATEWAY	1	X0114	3.19
SOUTH COASTAL	GATEWAY	2	X0118	9.91
SOUTH COASTAL	GATEWAY	2	X0119	7.14
SOUTH COASTAL	GATEWAY	2	X0120	7.36

SOUTH COASTAL	GATEWAY	3	X0121	8.76
SOUTH COASTAL	GATEWAY	3	X0123	7.25
SOUTH COASTAL	GATEWAY	3	X0125	6.76
SOUTH COASTAL	HIGHLANDS	1	C2805	8.46
SOUTH COASTAL	HIGHLANDS	1	C2806	10.79
SOUTH COASTAL	HIGHLANDS	1	C2807	10.28
SOUTH COASTAL	HIGHLANDS	2	C2802	8.31
SOUTH COASTAL	HIGHLANDS	2	C2803	5.93
SOUTH COASTAL	HIGHLANDS	2	C2804	6.58
SOUTH COASTAL	KENNETH	1	X0050	9.30
SOUTH COASTAL	KENNETH	1	X0051	5.10
SOUTH COASTAL	KENNETH	1	X0052	0.00
SOUTH COASTAL	KENNETH	1	X0053	9.70
SOUTH COASTAL	KENNETH	2	X0054	0.00
SOUTH COASTAL	KENNETH	2	X0055	4.81
SOUTH COASTAL	KENNETH	2	X0056	11.50
SOUTH COASTAL	KENNETH	2	X0057	9.20
SOUTH COASTAL	LAND-O-LAKES	1	C0140	13.23
SOUTH COASTAL	LAND-O-LAKES	1	C0141	6.44
SOUTH COASTAL	LAND-O-LAKES	1	C0142	0.00
SOUTH COASTAL	LAND-O-LAKES	1	C0143	7.24
SOUTH COASTAL	LARGO	1	J0402	3.16
SOUTH COASTAL	LARGO	1	J0403	8.34
SOUTH COASTAL	LARGO	1	J0404	10.22
SOUTH COASTAL	LARGO	1	J0405	5.99
SOUTH COASTAL	LARGO	2	J0406	6.46
SOUTH COASTAL	LARGO	2	J0407	10.86
SOUTH COASTAL	LARGO	2	J0408	4.96
SOUTH COASTAL	LARGO	2	J0409	6.11
SOUTH COASTAL	MAXIMO	1	X0143	10.47
SOUTH COASTAL	MAXIMO	1	X0144	0.92
SOUTH COASTAL	MAXIMO	1	X0146	7.21
SOUTH COASTAL	MAXIMO	1	X0147	10.17
SOUTH COASTAL	MAXIMO	2	X0149	9.67
SOUTH COASTAL	MAXIMO	2	X0150	8.55
SOUTH COASTAL	MAXIMO	2	X0151	10.54
SOUTH COASTAL	MAXIMO	2	X0152	0.34
SOUTH COASTAL	MAXIMO	3	X0140	8.78
SOUTH COASTAL	MAXIMO	3	X0141	8.22
SOUTH COASTAL	MAXIMO	3	X0142	9.08
SOUTH COASTAL	NEW PORT RICHEY	1	C0441	6.64
SOUTH COASTAL	NEW PORT RICHEY	1	C0442	5.30
SOUTH COASTAL	NEW PORT RICHEY	2	C0443	9.40
SOUTH COASTAL	NEW PORT RICHEY	2	C0444	8.60



SOUTH COASTAL	NORTHEAST	1	X0282	5.91
SOUTH COASTAL	NORTHEAST	1	X0283	6.47
SOUTH COASTAL	NORTHEAST	1	X0284	11.41
SOUTH COASTAL	NORTHEAST	1	X0285	7.77
SOUTH COASTAL	NORTHEAST	1	X0286	9.78
SOUTH COASTAL	NORTHEAST	2	X0287	9.95
SOUTH COASTAL	NORTHEAST	2	X0288	7.67
SOUTH COASTAL	NORTHEAST	2	X0289	8.61
SOUTH COASTAL	NORTHEAST	2	X0290	6.91
SOUTH COASTAL	NORTHEAST	2	X0291	3.67
SOUTH COASTAL	OAKHURST	1	J0221	8.15
SOUTH COASTAL	OAKHURST	1	J0228	9.25
SOUTH COASTAL	OAKHURST	1	J0229	8.32
SOUTH COASTAL	OAKHURST	2	J0226	10.10
SOUTH COASTAL	OAKHURST	2	J0227	9.32
SOUTH COASTAL	OAKHURST	3	J0223	8.79
SOUTH COASTAL	OAKHURST	3	J0224	9.71
SOUTH COASTAL	ODESSA	2	C4320	12.00
SOUTH COASTAL	ODESSA	2	C4322	10.11
SOUTH COASTAL	ODESSA	2	C4323	12.63
SOUTH COASTAL	OLDSMAR	1	C0603	0.08
SOUTH COASTAL	OLDSMAR	2	C0604	1.44
SOUTH COASTAL	PALM HARBOR	1	C0752	7.59
SOUTH COASTAL	PALM HARBOR	1	C0753	8.15
SOUTH COASTAL	PALM HARBOR	2	C0755	8.71
SOUTH COASTAL	PALM HARBOR	2	C0756	7.78
SOUTH COASTAL	PALM HARBOR	2	C0757	9.89
SOUTH COASTAL	PASADENA	1	X0216	5.10
SOUTH COASTAL	PASADENA	1	X0217	4.10
SOUTH COASTAL	PASADENA	1	X0219	8.34
SOUTH COASTAL	PASADENA	1	X0220	7.58
SOUTH COASTAL	PASADENA	2	X0211	9.69
SOUTH COASTAL	PASADENA	2	X0212	5.86
SOUTH COASTAL	PASADENA	2	X0213	5.44
SOUTH COASTAL	PASADENA	2	X0214	6.81
SOUTH COASTAL	PASADENA	2	X0215	3.33
SOUTH COASTAL	PILSBURY	1	X0252	11.60
SOUTH COASTAL	PILSBURY	1	X0253	10.45
SOUTH COASTAL	PILSBURY	1	X0254	9.75
SOUTH COASTAL	PILSBURY	1	X0255	9.28
SOUTH COASTAL	PILSBURY	2	X0256	10.46
SOUTH COASTAL	PILSBURY	2	X0257	10.16
SOUTH COASTAL	PILSBURY	2	X0258	9.25
SOUTH COASTAL	PILSBURY	2	X0259	12.57

SOUTH COASTAL	PINELLAS WELL FIELD	1	C801	0.00
SOUTH COASTAL	PINELLAS WELL FIELD	1	C802	0.00
SOUTH COASTAL	PORT RICHEY WEST	1	C0205	0.01
SOUTH COASTAL	PORT RICHEY WEST	1	C0206	10.52
SOUTH COASTAL	PORT RICHEY WEST	1	C0207	8.76
SOUTH COASTAL	PORT RICHEY WEST	2	C0202	8.43
SOUTH COASTAL	PORT RICHEY WEST	2	C0203	10.00
SOUTH COASTAL	PORT RICHEY WEST	3	C0208	6.97
SOUTH COASTAL	PORT RICHEY WEST	3	C0209	10.06
SOUTH COASTAL	PORT RICHEY WEST	3	C0210	7.89
SOUTH COASTAL	SAFETY HARBOR	1	C3518	6.61
SOUTH COASTAL	SAFETY HARBOR	1	C3525	7.49
SOUTH COASTAL	SAFETY HARBOR	1	C3527	8.42
SOUTH COASTAL	SAFETY HARBOR	1	C3528	7.74
SOUTH COASTAL	SAFETY HARBOR	2	C3521	8.44
SOUTH COASTAL	SAFETY HARBOR	2	C3523	7.19
SOUTH COASTAL	SAFETY HARBOR	2	C3524	7.49
SOUTH COASTAL	SEMINOLE	1	J0892	11.10
SOUTH COASTAL	SEMINOLE	1	J0893	9.42
SOUTH COASTAL	SEMINOLE	1	J0894	11.90
SOUTH COASTAL	SEMINOLE	1	J0895	10.70
SOUTH COASTAL	SEMINOLE	2	J0889	7.40
SOUTH COASTAL	SEMINOLE	2	J0890	10.40
SOUTH COASTAL	SEMINOLE	2	J0891	5.42
SOUTH COASTAL	SEMINOLE	2	J0888	0.00
SOUTH COASTAL	SEVEN SPRINGS	4	C4500	11.60
SOUTH COASTAL	SEVEN SPRINGS	4	C4501	9.90
SOUTH COASTAL	SEVEN SPRINGS	6	C4502	8.30
SOUTH COASTAL	SEVEN SPRINGS	5	C4507	8.00
SOUTH COASTAL	SEVEN SPRINGS	5	C4508	12.30
SOUTH COASTAL	SEVEN SPRINGS	5	C4509	6.50
SOUTH COASTAL	SEVEN SPRINGS	4	C4510	7.41
SOUTH COASTAL	SEVEN SPRINGS	6	C4512	7.23
SOUTH COASTAL	SIXTEENTH STREET	1	X0031	9.98
SOUTH COASTAL	SIXTEENTH STREET	1	X0033	3.58
SOUTH COASTAL	SIXTEENTH STREET	1	X0035	3.20
SOUTH COASTAL	SIXTEENTH STREET	1	X0043	4.14
SOUTH COASTAL	SIXTEENTH STREET	1	X0045	9.02
SOUTH COASTAL	SIXTEENTH STREET	2	X0032	0.03
SOUTH COASTAL	SIXTEENTH STREET	2	X0034	10.33
SOUTH COASTAL	SIXTEENTH STREET	2	X0036	5.88
SOUTH COASTAL	SIXTEENTH STREET	2	X0042	7.15
SOUTH COASTAL	SIXTEENTH STREET	2	X0046	6.72
SOUTH COASTAL	STARKEY ROAD	1	J0112	9.50

SOUTH COASTAL	STARKEY ROAD	1	J0113	5.40
SOUTH COASTAL	STARKEY ROAD	1	J0114	5.40
SOUTH COASTAL	STARKEY ROAD	2	J0115	7.90
SOUTH COASTAL	STARKEY ROAD	2	J0116	10.50
SOUTH COASTAL	STARKEY ROAD	2	J0117	3.64
SOUTH COASTAL	STARKEY ROAD	2	J0118	9.12
SOUTH COASTAL	TARPON SPRINGS	1	C0301	5.98
SOUTH COASTAL	TARPON SPRINGS	1	C0302	8.09
SOUTH COASTAL	TARPON SPRINGS	1	C0303	8.73
SOUTH COASTAL	TARPON SPRINGS	1	C0304	10.82
SOUTH COASTAL	TARPON SPRINGS	2	C0305	9.35
SOUTH COASTAL	TARPON SPRINGS	2	C0306	6.16
SOUTH COASTAL	TARPON SPRINGS	2	C0307	10.05
SOUTH COASTAL	TARPON SPRINGS	2	C0308	7.71
SOUTH COASTAL	TAYLOR AVENUE	1	J2905	8.67
SOUTH COASTAL	TAYLOR AVENUE	1	J2906	8.37
SOUTH COASTAL	TAYLOR AVENUE	1	J2907	10.44
SOUTH COASTAL	TAYLOR AVENUE	2	J2902	8.02
SOUTH COASTAL	TAYLOR AVENUE	2	J2903	11.20
SOUTH COASTAL	TAYLOR AVENUE	2	J2904	10.34
SOUTH COASTAL	THIRTY SECOND STREET	1	X0022	9.09
SOUTH COASTAL	THIRTY SECOND STREET	1	X0023	4.63
SOUTH COASTAL	THIRTY SECOND STREET	1	X0024	4.66
SOUTH COASTAL	THIRTY SECOND STREET	1	X0025	11.02
SOUTH COASTAL	THIRTY SECOND STREET	2	X0026	7.06
SOUTH COASTAL	THIRTY SECOND STREET	2	X0027	11.21
SOUTH COASTAL	THIRTY SECOND STREET	2	X0028	8.37
SOUTH COASTAL	TRI-CITY	2	J5034	11.30
SOUTH COASTAL	TRI-CITY	2	J5036	3.80
SOUTH COASTAL	TRI-CITY	2	J5038	5.10
SOUTH COASTAL	TRI-CITY	3	J5030	5.40
SOUTH COASTAL	TRI-CITY	3	J5032	7.80
SOUTH COASTAL	TRI-CITY	3	J5040	11.50
SOUTH COASTAL	ULMERTON	1	J0240	7.51
SOUTH COASTAL	ULMERTON	1	J0241	9.32
SOUTH COASTAL	ULMERTON	1	J0242	6.05
SOUTH COASTAL	ULMERTON	1	J0243	9.31
SOUTH COASTAL	ULMERTON	2	J0244	7.36
SOUTH COASTAL	ULMERTON	2	J0245	8.83
SOUTH COASTAL	ULMERTON	2	J0246	5.74
SOUTH COASTAL	ULMERTON	2	J0247	7.92
SOUTH COASTAL	ULMERTON WEST	1	J0680	8.90
SOUTH COASTAL	ULMERTON WEST	1	J0682	10.73
SOUTH COASTAL	ULMERTON WEST	1	J0684	10.30

SOUTH COASTAL	ULMERTON WEST	2	J0689	10.80
SOUTH COASTAL	ULMERTON WEST	2	J0690	9.50
SOUTH COASTAL	ULMERTON WEST	2	J0691	4.00
SOUTH COASTAL	VINOY	1	X0076	4.40
SOUTH COASTAL	VINOY	1	X0077	4.80
SOUTH COASTAL	VINOY	1	X0078	11.60
SOUTH COASTAL	VINOY	1	X0079	2.30
SOUTH COASTAL	VINOY	1	X0080	6.40
SOUTH COASTAL	VINOY	2	X0071	13.60
SOUTH COASTAL	VINOY	2	X0072	11.40
SOUTH COASTAL	VINOY	2	X0073	3.00
SOUTH COASTAL	VINOY	2	X0074	2.40
SOUTH COASTAL	VINOY	2	X0075	1.40
SOUTH COASTAL	WALSINGHAM	1	J0555	8.57
SOUTH COASTAL	WALSINGHAM	1	J0556	8.79
SOUTH COASTAL	WALSINGHAM	1	J0557	10.62
SOUTH COASTAL	WALSINGHAM	1	J0558	7.81
SOUTH COASTAL	WALSINGHAM	2	J0551	6.18
SOUTH COASTAL	WALSINGHAM	2	J0552	9.15
SOUTH COASTAL	WALSINGHAM	2	J0553	7.35
SOUTH COASTAL	WALSINGHAM	2	J0554	9.29
SOUTH COASTAL	ZEPHYRHILLS	1	C0854	4.67
SOUTH COASTAL	ZEPHYRHILLS	1	C0855	6.26
SOUTH COASTAL	ZEPHYRHILLS	1	C0856	7.18
SOUTH COASTAL	ZEPHYRHILLS	2	C0851	8.62
SOUTH COASTAL	ZEPHYRHILLS	2	C0852	7.34
SOUTH COASTAL	ZEPHYRHILLS	2	C0853	3.62
SOUTH COASTAL	ZEPHYRHILLS NORTH	1	C0342	6.85
SOUTH COASTAL	ZEPHYRHILLS NORTH	1	C0343	11.40
SOUTH COASTAL	ZEPHYRHILLS NORTH	2	C0340	2.98
SOUTH COASTAL	ZEPHYRHILLS NORTH	2	C0341	7.39
SOUTH COASTAL	ZEPHYRHILLS NORTH	1	C0344	6.36
SOUTH COASTAL	ZEPHYRHILLS NORTH	2	C0345	3.26
SOUTH CENTRAL	AGRICOLA #4	3	K151	0.00
SOUTH CENTRAL	ARBUCKLE CREEK	1	K1361	3.45
SOUTH CENTRAL	AVALON	1	AVAL001	0.00
SOUTH CENTRAL	AVON PARK NORTH	1	K0893	6.56
SOUTH CENTRAL	AVON PARK NORTH	1	K0894	5.29
SOUTH CENTRAL	AVON PARK NORTH	2	K0891	5.40
SOUTH CENTRAL	AVON PARK NORTH	2	K0892	2.15
SOUTH CENTRAL	AVON PARK PLANT	4	K0118	4.79
SOUTH CENTRAL	AVON PARK PLANT	4	K0119	7.01
SOUTH CENTRAL	AVON PARK PLANT	5	K0116	4.42
SOUTH CENTRAL	AVON PARK PLANT	5	K0117	4.81

SOUTH CENTRAL	BABSON PARK	1	K1195	3.66
SOUTH CENTRAL	BABSON PARK	1	K1196	3.74
SOUTH CENTRAL	BALBOA	1	BALB001	0.00
SOUTH CENTRAL	BARNUM CITY	1	K1501	6.09
SOUTH CENTRAL	BARNUM CITY	1	K3360	10.05
SOUTH CENTRAL	BARNUM CITY	1	K3364	1.69
SOUTH CENTRAL	BARNUM CITY	2	K1503	9.11
SOUTH CENTRAL	BARNUM CITY	2	K3362	7.38
SOUTH CENTRAL	BAY HILL	1	K72	8.53
SOUTH CENTRAL	BAY HILL	1	K73	10.85
SOUTH CENTRAL	BAY HILL	1	K74	9.42
SOUTH CENTRAL	BAY HILL	2	K75	5.87
SOUTH CENTRAL	BAY HILL	2	K76	8.97
SOUTH CENTRAL	BAY HILL	2	K77	3.42
SOUTH CENTRAL	BAY HILL	3	K79	10.95
SOUTH CENTRAL	BAY HILL	3	K67	8.16
SOUTH CENTRAL	BAY HILL	3	K68	9.70
SOUTH CENTRAL	BOGGY MARSH	1	K958	7.44
SOUTH CENTRAL	BOGGY MARSH	1	K959	6.72
SOUTH CENTRAL	BOGGY MARSH	2	K957	4.73
SOUTH CENTRAL	BOGGY MARSH	2	K960	7.68
SOUTH CENTRAL	BOGGY MARSH	2	K961	9.18
SOUTH CENTRAL	BONNET CREEK	1	K973	4.24
SOUTH CENTRAL	BONNET CREEK	1	K974	3.84
SOUTH CENTRAL	BONNET CREEK	1	K975	9.19
SOUTH CENTRAL	BONNET CREEK	1	K976	6.26
SOUTH CENTRAL	BONNET CREEK	2	K1230	8.59
SOUTH CENTRAL	BONNET CREEK	2	K1231	8.27
SOUTH CENTRAL	BONNET CREEK	2	K1232	4.75
SOUTH CENTRAL	BOWEN	1	BOWE001	0.00
SOUTH CENTRAL	CABBAGE ISLAND	2	K1614	7.62
SOUTH CENTRAL	CABBAGE ISLAND	2	K1616	6.21
SOUTH CENTRAL	CABBAGE ISLAND	2	K1618	4.52
SOUTH CENTRAL	CABBAGE ISLAND	3	K1613	4.47
SOUTH CENTRAL	CABBAGE ISLAND	3	K1615	1.83
SOUTH CENTRAL	CANOE CREEK	1	W0105	3.70
SOUTH CENTRAL	CELEBRATION	2	K2701	7.75
SOUTH CENTRAL	CELEBRATION	2	K2704	2.24
SOUTH CENTRAL	CELEBRATION	3	K2703	6.53
SOUTH CENTRAL	CELEBRATION	3	K2706	9.49
SOUTH CENTRAL	CENTRAL PARK	1	K0495	3.49
SOUTH CENTRAL	CENTRAL PARK	1	W0493	9.58
SOUTH CENTRAL	CENTRAL PARK	1	W0494	4.76
SOUTH CENTRAL	CENTRAL PARK	2	K0499	10.21



SOUTH CENTRAL	CENTRAL PARK	2	W0496	6.08
SOUTH CENTRAL	CENTRAL PARK	2	W0497	8.95
SOUTH CENTRAL	CENTRAL PARK	2	W0498	5.79
SOUTH CENTRAL	CENTRAL PARK	3	K800	9.22
SOUTH CENTRAL	CENTRAL PARK	3	W0500	10.04
SOUTH CENTRAL	CENTRAL PARK	3	W0501	5.75
SOUTH CENTRAL	CHAMPIONS GATE	1	K1762	10.58
SOUTH CENTRAL	CHAMPIONS GATE	1	K1764	5.41
SOUTH CENTRAL	CHAMPIONS GATE	2	K1761	1.24
SOUTH CENTRAL	CHAMPIONS GATE	2	K1763	7.42
SOUTH CENTRAL	CITRUSVILLE	1	K0035	2.94
SOUTH CENTRAL	CITRUSVILLE	1	K0061	1.36
SOUTH CENTRAL	CITRUSVILLE	1	K0062	7.09
SOUTH CENTRAL	CLARCONA	1	M0337	8.50
SOUTH CENTRAL	CLARCONA	1	M0343	10.30
SOUTH CENTRAL	CLARCONA	2	M0339	1.81
SOUTH CENTRAL	CLARCONA	2	M0340	5.90
SOUTH CENTRAL	CLARCONA	2	M0345	7.90
SOUTH CENTRAL	CLARCONA	2	M0346	11.10
SOUTH CENTRAL	CLARCONA	3	M0342	8.40
SOUTH CENTRAL	CLARCONA	3	M0348	6.10
SOUTH CENTRAL	CLARCONA	3	M0351	0.53
SOUTH CENTRAL	CLERMONT	1	K601	9.87
SOUTH CENTRAL	CLERMONT	1	K602	7.51
SOUTH CENTRAL	CLERMONT	1	K603	8.61
SOUTH CENTRAL	CLERMONT	2	K605	11.42
SOUTH CENTRAL	CLERMONT	2	K606	8.60
SOUTH CENTRAL	CLERMONT	2	K607	6.61
SOUTH CENTRAL	COLONIAL	1	K2476	9.70
SOUTH CENTRAL	COLONIAL	1	K2477	6.10
SOUTH CENTRAL	CONWAY	1	W0407	6.93
SOUTH CENTRAL	CONWAY	1	W0408	9.18
SOUTH CENTRAL	CONWAY	2	W0404	8.03
SOUTH CENTRAL	CONWAY	2	W0405	7.78
SOUTH CENTRAL	COUNTRY OAKS	1	K1443	4.34
SOUTH CENTRAL	COUNTRY OAKS	1	K1446	2.08
SOUTH CENTRAL	COUNTRY OAKS	2	K1445	0.00
SOUTH CENTRAL	COUNTRY OAKS	2	K1447	7.93
SOUTH CENTRAL	CROOKED LAKE	1	K1772	7.87
SOUTH CENTRAL	CURRY FORD	2	W595	3.40
SOUTH CENTRAL	CURRY FORD	2	W596	10.70
SOUTH CENTRAL	CURRY FORD	2	W597	8.90
SOUTH CENTRAL	CURRY FORD	2	W598	8.20
SOUTH CENTRAL	CURRY FORD	3	W601	9.70

SOUTH CENTRAL	CYPRESSWOOD	1	K0317	3.51
SOUTH CENTRAL	CYPRESSWOOD	1	K0563	4.57
SOUTH CENTRAL	CYPRESSWOOD	2	K0561	3.09
SOUTH CENTRAL	CYPRESSWOOD	2	K0562	8.21
SOUTH CENTRAL	DAVENPORT	1	K0007	3.21
SOUTH CENTRAL	DAVENPORT	1	K0008	4.58
SOUTH CENTRAL	DAVENPORT	1	K0009	6.41
SOUTH CENTRAL	DESOTO CITY	1	K3220	5.39
SOUTH CENTRAL	DESOTO CITY	1	K3221	1.11
SOUTH CENTRAL	DESOTO CITY	2	K3222	1.79
SOUTH CENTRAL	DINNER LAKE	1	K1690	6.99
SOUTH CENTRAL	DINNER LAKE	1	K1691	7.95
SOUTH CENTRAL	DINNER LAKE	2	K1684	1.78
SOUTH CENTRAL	DINNER LAKE	2	K1685	6.49
SOUTH CENTRAL	DINNER LAKE	2	K1687	2.15
SOUTH CENTRAL	DINNER LAKE	2	K1688	4.01
SOUTH CENTRAL	DINNER LAKE	2	K1689	4.98
SOUTH CENTRAL	DUNDEE	2	K3244	6.78
SOUTH CENTRAL	DUNDEE	2	K3245	8.64
SOUTH CENTRAL	DUNDEE	2	K3246	1.75
SOUTH CENTRAL	EAST LAKE WALES	1	K1032	4.09
SOUTH CENTRAL	EAST LAKE WALES	1	K1030	5.98
SOUTH CENTRAL	EAST LAKE WALES	2	K1031	4.14
SOUTH CENTRAL	FISHEATING CREEK	1	K1560	8.95
SOUTH CENTRAL	FORT MEADE	3	K0170	1.79
SOUTH CENTRAL	FORT MEADE	3	K0171	0.03
SOUTH CENTRAL	FOUR CORNERS	1	K1404	7.87
SOUTH CENTRAL	FOUR CORNERS	1	K1407	7.47
SOUTH CENTRAL	FOUR CORNERS	2	K1406	6.98
SOUTH CENTRAL	FOUR CORNERS	2	K1409	4.74
SOUTH CENTRAL	FOUR CORNERS	2	K1412	0.00
SOUTH CENTRAL	FOUR CORNERS	3	K1414	5.27
SOUTH CENTRAL	FOUR CORNERS	3	K1416	8.86
SOUTH CENTRAL	FOUR CORNERS	3	K1411	7.34
SOUTH CENTRAL	FROSTPROOF	1	K0100	4.28
SOUTH CENTRAL	FROSTPROOF	1	K0101	4.42
SOUTH CENTRAL	FROSTPROOF	1	K0102	5.19
SOUTH CENTRAL	FROSTPROOF	2	K0103	1.81
SOUTH CENTRAL	FROSTPROOF	2	K0104	4.82
SOUTH CENTRAL	GROVELAND	1	K673	4.50
SOUTH CENTRAL	GROVELAND	1	K674	6.91
SOUTH CENTRAL	GROVELAND	2	K675	5.76
SOUTH CENTRAL	HAINES CITY	1	K0018	10.24
SOUTH CENTRAL	HAINES CITY	1	K0019	5.28

SOUTH CENTRAL	HAINES CITY	1	K0021	8.56
SOUTH CENTRAL	HAINES CITY	1	K0022	6.69
SOUTH CENTRAL	HAINES CITY	2	K0016	8.96
SOUTH CENTRAL	HAINES CITY	2	K0017	8.19
SOUTH CENTRAL	HAINES CITY	2	K0020	6.04
SOUTH CENTRAL	HEMPLE	1	K2255	9.20
SOUTH CENTRAL	HEMPLE	1	K2250	9.42
SOUTH CENTRAL	HEMPLE	2	K2244	6.68
SOUTH CENTRAL	HEMPLE	2	K2247	8.75
SOUTH CENTRAL	HEMPLE	2	K2252	2.22
SOUTH CENTRAL	HEMPLE	3	K2246	6.32
SOUTH CENTRAL	HEMPLE	3	K2249	5.24
SOUTH CENTRAL	HEMPLE	3	K2253	7.64
SOUTH CENTRAL	HOLOPAW	1	W0630	4.30
SOUTH CENTRAL	HOLOPAW	2	W0629	7.80
SOUTH CENTRAL	HOWEY	1	K564	5.20
SOUTH CENTRAL	HOWEY	1	K565	5.20
SOUTH CENTRAL	HUNTERS CREEK	1	K51	8.22
SOUTH CENTRAL	HUNTERS CREEK	2	K42	10.52
SOUTH CENTRAL	HUNTERS CREEK	2	K43	9.70
SOUTH CENTRAL	HUNTERS CREEK	2	K46	0.00
SOUTH CENTRAL	HUNTERS CREEK	3	K45	10.18
SOUTH CENTRAL	HUNTERS CREEK	3	K48	6.21
SOUTH CENTRAL	HUNTERS CREEK	3	K49	6.44
SOUTH CENTRAL	INTERCESSION CITY	1	K0966	7.19
SOUTH CENTRAL	INTERCESSION CITY	1	K0967	7.88
SOUTH CENTRAL	INTERNATIONAL DRIVE	2	K4820	5.39
SOUTH CENTRAL	INTERNATIONAL DRIVE	3	K4815	7.16
SOUTH CENTRAL	INTERNATIONAL DRIVE	3	K4818	7.34
SOUTH CENTRAL	ISLEWORTH	2	K779	9.97
SOUTH CENTRAL	ISLEWORTH	2	K784	9.65
SOUTH CENTRAL	ISLEWORTH	2	K792	8.10
SOUTH CENTRAL	ISLEWORTH	3	K781	11.24
SOUTH CENTRAL	ISLEWORTH	3	K782	5.63
SOUTH CENTRAL	ISLEWORTH	3	K789	4.68
SOUTH CENTRAL	LAKE BRYAN	1	K240	1.75
SOUTH CENTRAL	LAKE BRYAN	1	K242	3.58
SOUTH CENTRAL	LAKE BRYAN	2	K244	9.21
SOUTH CENTRAL	LAKE BRYAN	2	K238	11.76
SOUTH CENTRAL	LAKE BRYAN	2	K239	4.17
SOUTH CENTRAL	LAKE BRYAN	3	K230	8.95
SOUTH CENTRAL	LAKE BRYAN	3	K231	6.71
SOUTH CENTRAL	LAKE BRYAN	3	K232	9.48
SOUTH CENTRAL	LAKE LUNTZ	1	K3282	8.34

SOUTH CENTRAL	LAKE LUNTZ	1	K3284	7.79
SOUTH CENTRAL	LAKE LUNTZ	2	K3283	10.75
SOUTH CENTRAL	LAKE LUNTZ	2	K3285	10.85
SOUTH CENTRAL	LAKE MARION	1	K1286	5.13
SOUTH CENTRAL	LAKE MARION	1	K1287	10.10
SOUTH CENTRAL	LAKE MARION	2	K1288	4.82
SOUTH CENTRAL	LAKE OF THE HILLS	1	K1884	8.12
SOUTH CENTRAL	LAKE OF THE HILLS	1	K1885	4.36
SOUTH CENTRAL	LAKE PLACID	1	K0757	3.06
SOUTH CENTRAL	LAKE PLACID	1	K0758	4.74
SOUTH CENTRAL	LAKE PLACID	2	K1066	7.18
SOUTH CENTRAL	LAKE PLACID	2	K1320	5.66
SOUTH CENTRAL	LAKE PLACID NORTH	1	K0024	3.66
SOUTH CENTRAL	LAKE PLACID NORTH	2	K0027	2.21
SOUTH CENTRAL	LAKE WALES	1	K0053	4.93
SOUTH CENTRAL	LAKE WALES	1	K0054	7.48
SOUTH CENTRAL	LAKE WALES	1	K0055	6.34
SOUTH CENTRAL	LAKE WALES	2	K0056	2.46
SOUTH CENTRAL	LAKE WALES	2	K0057	4.05
SOUTH CENTRAL	LAKE WALES	2	K0058	6.91
SOUTH CENTRAL	LAKE WILSON	1	K881	4.43
SOUTH CENTRAL	LAKE WILSON	1	K882	7.97
SOUTH CENTRAL	LAKE WILSON	2	K883	9.86
SOUTH CENTRAL	LAKE WILSON	2	K884	8.06
SOUTH CENTRAL	LAKEWOOD	1	K1693	6.92
SOUTH CENTRAL	LAKEWOOD	1	K1694	4.14
SOUTH CENTRAL	LAKEWOOD	1	K1695	5.78
SOUTH CENTRAL	LAKEWOOD	2	K1705	5.23
SOUTH CENTRAL	LAKEWOOD	2	K1706	7.36
SOUTH CENTRAL	LEISURE LAKES	1	K1415	5.84
SOUTH CENTRAL	MAGNOLIA RANCH	2	W0502	7.90
SOUTH CENTRAL	MAGNOLIA RANCH	2	W0503	5.30
SOUTH CENTRAL	MAGNOLIA RANCH	3	W0504	7.80
SOUTH CENTRAL	MAGNOLIA RANCH	3	W0505	0.00
SOUTH CENTRAL	MEADOW WOODS EAST	1	K1060	10.02
SOUTH CENTRAL	MEADOW WOODS EAST	1	K1061	6.76
SOUTH CENTRAL	MEADOW WOODS SOUTH	2	K1775	8.26
SOUTH CENTRAL	MEADOW WOODS SOUTH	2	K1778	7.31
SOUTH CENTRAL	MEADOW WOODS SOUTH	2	K1781	10.38
SOUTH CENTRAL	MEADOW WOODS SOUTH	3	K1777	6.78
SOUTH CENTRAL	MEADOW WOODS SOUTH	3	K1780	5.71
SOUTH CENTRAL	MEADOW WOODS SOUTH	3	K1783	8.79
SOUTH CENTRAL	MIDWAY	1	K1472	10.80
SOUTH CENTRAL	MIDWAY	1	K1473	8.44

SOUTH CENTRAL	MINNEOLA	2	K945	7.34
SOUTH CENTRAL	MINNEOLA	2	K946	9.53
SOUTH CENTRAL	MONTVERDE	1	K4834	10.12
SOUTH CENTRAL	MONTVERDE	1	K4837	6.19
SOUTH CENTRAL	MONTVERDE	2	K4841	8.31
SOUTH CENTRAL	MONTVERDE	2	K4833	5.44
SOUTH CENTRAL	MONTVERDE	2	K4836	7.58
SOUTH CENTRAL	MONTVERDE	2	K4840	9.18
SOUTH CENTRAL	NARCOOSSEE	1	W0212	10.70
SOUTH CENTRAL	NARCOOSSEE	1	W0213	10.30
SOUTH CENTRAL	NARCOOSSEE	1	W0214	6.40
SOUTH CENTRAL	NARCOOSSEE	2	W0215	9.40
SOUTH CENTRAL	NARCOOSSEE	2	W0217	9.00
SOUTH CENTRAL	NARCOOSSEE	3	W0219	9.50
SOUTH CENTRAL	NARCOOSSEE	3	W0220	8.50
SOUTH CENTRAL	OCOEE	1	M1090	9.55
SOUTH CENTRAL	OCOEE	1	M1091	5.75
SOUTH CENTRAL	OCOEE	1	M1092	9.17
SOUTH CENTRAL	OCOEE	2	M1094	7.75
SOUTH CENTRAL	OCOEE	2	M1095	5.88
SOUTH CENTRAL	OCOEE	2	M1096	9.59
SOUTH CENTRAL	OCOEE	3	M1086	4.65
SOUTH CENTRAL	OCOEE	3	M1087	6.93
SOUTH CENTRAL	OCOEE	3	M1088	9.27
SOUTH CENTRAL	OKAHUMPKA	1	K284	6.24
SOUTH CENTRAL	OKAHUMPKA	2	K285	5.65
SOUTH CENTRAL	OKAHUMPKA	2	K286	1.67
SOUTH CENTRAL	ORANGEWOOD	1	K217	3.48
SOUTH CENTRAL	ORANGEWOOD	1	K220	3.04
SOUTH CENTRAL	ORANGEWOOD	1	K221	5.46
SOUTH CENTRAL	ORANGEWOOD	1	K222	8.89
SOUTH CENTRAL	ORANGEWOOD	1	K223	4.03
SOUTH CENTRAL	ORANGEWOOD	1	K224	4.00
SOUTH CENTRAL	ORANGEWOOD	2	K218	4.69
SOUTH CENTRAL	ORANGEWOOD	2	K225	2.25
SOUTH CENTRAL	ORANGEWOOD	2	K226	7.05
SOUTH CENTRAL	ORANGEWOOD	2	K227	3.96
SOUTH CENTRAL	ORANGEWOOD	2	K228	8.85
SOUTH CENTRAL	ORANGEWOOD	2	K229	3.41
SOUTH CENTRAL	PEMBROKE	1	K3205	0.16
SOUTH CENTRAL	PINECASTLE	1	W0391	2.87
SOUTH CENTRAL	PINECASTLE	1	W0392	8.48
SOUTH CENTRAL	PINECASTLE	2	K0396	8.20
SOUTH CENTRAL	PINECASTLE	2	W0394	0.00



SOUTH CENTRAL	PINECASTLE	2	W0395	10.49
SOUTH CENTRAL	POINCIANA	1	K1236	9.66
SOUTH CENTRAL	POINCIANA	1	K1237	7.59
SOUTH CENTRAL	POINCIANA	1	K1558	9.54
SOUTH CENTRAL	POINCIANA	2	K1508	9.43
SOUTH CENTRAL	POINCIANA	2	K1509	6.26
SOUTH CENTRAL	POINCIANA	2	K1556	8.75
SOUTH CENTRAL	REEDY LAKE	1	K1104	6.30
SOUTH CENTRAL	REEDY LAKE	1	K1110	7.67
SOUTH CENTRAL	REEDY LAKE	2	K1102	5.35
SOUTH CENTRAL	REEDY LAKE	2	K1108	0.00
SOUTH CENTRAL	RIO PINAR	1	W0968	9.10
SOUTH CENTRAL	RIO PINAR	1	W0969	6.30
SOUTH CENTRAL	RIO PINAR	1	W0970	11.80
SOUTH CENTRAL	RIO PINAR	1	W0975	8.30
SOUTH CENTRAL	RIO PINAR	4	W0971	4.90
SOUTH CENTRAL	RIO PINAR	4	W0972	11.10
SOUTH CENTRAL	RIO PINAR	4	W0973	8.80
SOUTH CENTRAL	RIO PINAR	4	W0974	8.50
SOUTH CENTRAL	SAND LAKE	1	K920	2.29
SOUTH CENTRAL	SAND LAKE	1	K925	4.19
SOUTH CENTRAL	SAND LAKE	1	K926	4.06
SOUTH CENTRAL	SAND LAKE	1	K931	2.75
SOUTH CENTRAL	SAND LAKE	1	K932	3.60
SOUTH CENTRAL	SAND LAKE	2	K922	4.22
SOUTH CENTRAL	SAND LAKE	2	K923	2.02
SOUTH CENTRAL	SAND LAKE	2	K928	4.63
SOUTH CENTRAL	SAND LAKE	2	K929	6.58
SOUTH CENTRAL	SAND LAKE	2	K934	7.55
SOUTH CENTRAL	SAND MOUNTAIN	1	K3201	0.91
SOUTH CENTRAL	SEBRING EAST	1	K0541	2.99
SOUTH CENTRAL	SEBRING EAST	1	K0542	5.85
SOUTH CENTRAL	SHINGLE CREEK	1	K857	10.68
SOUTH CENTRAL	SHINGLE CREEK	1	K860	8.68
SOUTH CENTRAL	SHINGLE CREEK	1	K861	5.75
SOUTH CENTRAL	SHINGLE CREEK	2	K855	8.37
SOUTH CENTRAL	SHINGLE CREEK	2	K858	6.81
SOUTH CENTRAL	SHINGLE CREEK	2	K863	8.73
SOUTH CENTRAL	SHINGLE CREEK	3	K868	8.66
SOUTH CENTRAL	SKY LAKE	1	W0362	6.55
SOUTH CENTRAL	SKY LAKE	1	W0363	10.31
SOUTH CENTRAL	SKY LAKE	1	W0364	6.55
SOUTH CENTRAL	SKY LAKE	2	W0365	9.18
SOUTH CENTRAL	SKY LAKE	2	W0366	6.14

SOUTH CENTRAL	SKY LAKE	3	W0367	10.31
SOUTH CENTRAL	SKY LAKE	3	W0368	6.99
SOUTH CENTRAL	SKY LAKE	3	W0369	9.37
SOUTH CENTRAL	SOUTH BARTOW	1	K0154	5.21
SOUTH CENTRAL	SUN'N LAKES	1	K1300	6.79
SOUTH CENTRAL	SUN'N LAKES	1	K1296	6.88
SOUTH CENTRAL	SUN'N LAKES	1	K1297	5.85
SOUTH CENTRAL	SUN'N LAKES	2	K1136	5.85
SOUTH CENTRAL	SUN'N LAKES	2	K1137	3.20
SOUTH CENTRAL	SUN'N LAKES	3	K1135	3.95
SOUTH CENTRAL	TAFT	1	K1026	7.65
SOUTH CENTRAL	TAFT	1	K1027	6.71
SOUTH CENTRAL	TAFT	1	K1028	6.11
SOUTH CENTRAL	TAFT	2	K1023	2.33
SOUTH CENTRAL	TAFT	2	K1024	4.81
SOUTH CENTRAL	TAFT	2	K1025	9.00
SOUTH CENTRAL	TAFT INDUSTRIAL	1	K3432	0.00
SOUTH CENTRAL	TAUNTON ROAD	1	K1081	4.92
SOUTH CENTRAL	TAUNTON ROAD	1	K1083	3.41
SOUTH CENTRAL	VINELAND	1	K901	5.78
SOUTH CENTRAL	VINELAND	1	K907	10.35
SOUTH CENTRAL	VINELAND	1	K913	6.55
SOUTH CENTRAL	VINELAND	2	K903	10.57
SOUTH CENTRAL	VINELAND	2	K909	3.32
SOUTH CENTRAL	VINELAND	2	K904	10.50
SOUTH CENTRAL	VINELAND	2	K910	7.98
SOUTH CENTRAL	VINELAND	3	K906	8.23
SOUTH CENTRAL	VINELAND	3	K915	7.12
SOUTH CENTRAL	WAUCHULA	1	K0245	3.90
SOUTH CENTRAL	WAUCHULA	2	K0246	5.04
SOUTH CENTRAL	WEST DAVENPORT	1	K1523	5.55
SOUTH CENTRAL	WEST DAVENPORT	1	K1524	4.40
SOUTH CENTRAL	WEST DAVENPORT	2	K1521	10.93
SOUTH CENTRAL	WEST DAVENPORT	2	K1526	4.09
SOUTH CENTRAL	WEST LAKE WALES	2	K0866	5.34
SOUTH CENTRAL	WESTRIDGE	1	K0420	8.49
SOUTH CENTRAL	WESTRIDGE	1	K0425	5.92
SOUTH CENTRAL	WESTRIDGE	2	K0421	8.56
SOUTH CENTRAL	WESTRIDGE	2	K0426	6.36
SOUTH CENTRAL	WESTRIDGE	2	K0428	5.59
SOUTH CENTRAL	WEWAHOOTEE	1	W1197	2.20
SOUTH CENTRAL	WEWAHOOTEE	1	W1198	2.10
SOUTH CENTRAL	WINDERMERE	1	K303	7.91
SOUTH CENTRAL	WINDERMERE	1	K304	4.43

SOUTH CENTRAL	WINDERMERE	3	K302	8.66
SOUTH CENTRAL	WINTER GARDEN	1	K204	9.08
SOUTH CENTRAL	WINTER GARDEN	1	K205	8.90
SOUTH CENTRAL	WINTER GARDEN	1	K206	9.62
SOUTH CENTRAL	WINTER GARDEN	1	K207	8.39
SOUTH CENTRAL	WINTER GARDEN	2	K201	10.57
SOUTH CENTRAL	WINTER GARDEN	2	K202	7.86
SOUTH CENTRAL	WINTER GARDEN	2	K203	8.02
SOUTH CENTRAL	WOODSMERE	3	M0252	5.48
SOUTH CENTRAL	WOODSMERE	3	M0253	3.54
SOUTH CENTRAL	WOODSMERE	3	M0254	5.36
SOUTH CENTRAL	WOODSMERE	4	M0255	6.62
SOUTH CENTRAL	WOODSMERE	4	M0256	7.63
SOUTH CENTRAL	WORLD GATEWAY	1	K0187	7.61
SOUTH CENTRAL	WORLD GATEWAY	1	K0189	8.14
NORTH COASTAL	ADAMS	1	A0199	5.50
NORTH COASTAL	ADAMS	1	A0200	3.90
NORTH COASTAL	ALACHUA	1	A0143	1.40
NORTH COASTAL	ALACHUA	1	A0144	3.00
NORTH COASTAL	APALACHICOLA	1	N58	5.20
NORTH COASTAL	APALACHICOLA	1	N59	6.30
NORTH COASTAL	ARCHER	1	A0195	1.50
NORTH COASTAL	ARCHER	2	A0196	5.20
NORTH COASTAL	BEACON HILL	1	N516	6.00
NORTH COASTAL	BEACON HILL	2	N515	1.80
NORTH COASTAL	BEACON HILL	2	N527	4.70
NORTH COASTAL	BELLEVIEW	1	A0001	8.80
NORTH COASTAL	BELLEVIEW	1	A0003	10.10
NORTH COASTAL	BELLEVIEW	2	A0002	9.90
NORTH COASTAL	BELLEVIEW	2	A0004	6.70
NORTH COASTAL	BELLEVIEW	2	A0006	10.20
NORTH COASTAL	BEVERLY HILLS	1	A0074	7.00
NORTH COASTAL	BEVERLY HILLS	1	A0075	7.30
NORTH COASTAL	BEVERLY HILLS	2	A0072	5.70
NORTH COASTAL	BEVERLY HILLS	2	A0073	6.70
NORTH COASTAL	BROOKSVILLE	2	A0097	5.40
NORTH COASTAL	BROOKSVILLE	2	A0098	5.30
NORTH COASTAL	BROOKSVILLE	3	A0095	6.10
NORTH COASTAL	BROOKSVILLE	3	A0096	8.60
NORTH COASTAL	BEVILLE CORNER	1	A0561	1.90
NORTH COASTAL	BEVILLE CORNER	1	A0562	3.30
NORTH COASTAL	BUSHNELL EAST	1	A170	6.70
NORTH COASTAL	CARRABELLE	1	N42	2.20
NORTH COASTAL	CARRABELLE	1	N43	6.10

NORTH COASTAL	CARRABELLE BEACH	1	N48	2.30
NORTH COASTAL	CIRCLE SQUARE	1	A0251	5.70
NORTH COASTAL	CIRCLE SQUARE	2	A0250	5.70
NORTH COASTAL	CITRUS HILLS	2	A0282	6.80
NORTH COASTAL	CITRUS HILLS	2	A0284	7.60
NORTH COASTAL	CITRUS HILLS	3	A0283	4.90
NORTH COASTAL	CITRUS HILLS	3	A0285	6.50
NORTH COASTAL	COLEMAN	1	A0105	2.20
NORTH COASTAL	COLEMAN	1	A0106	5.70
NORTH COASTAL	COLEMAN	2	A0107	5.00
NORTH COASTAL	CRAWFORDVILLE	1	N35	6.10
NORTH COASTAL	CRAWFORDVILLE	1	N36	4.60
NORTH COASTAL	CROSS CITY	1	A0118	4.50
NORTH COASTAL	CROSS CITY	1	A0119	7.20
NORTH COASTAL	CROSS CITY INDUSTRIAL	1	A0046	3.90
NORTH COASTAL	CRYSTAL RIVER NORTH	1	A0161	6.70
NORTH COASTAL	CRYSTAL RIVER NORTH	1	A0162	7.50
NORTH COASTAL	CRYSTAL RIVER PLANT	11	A0300	0.00
NORTH COASTAL	CRYSTAL RIVER PLANT	11	A0308	0.00
NORTH COASTAL	CRYSTAL RIVER SOUTH	1	A0158	0.00
NORTH COASTAL	CRYSTAL RIVER SOUTH	1	A0159	5.20
NORTH COASTAL	DUNNELLON TOWN	1	A0070	8.20
NORTH COASTAL	DUNNELLON TOWN	2	A0068	4.30
NORTH COASTAL	DUNNELLON TOWN	2	A0069	10.00
NORTH COASTAL	EAGLES NEST	1	A0228	6.10
NORTH COASTAL	EAGLES NEST	2	A0224	4.80
NORTH COASTAL	EAST POINT	1	N230	2.40
NORTH COASTAL	EAST POINT	1	N231	4.80
NORTH COASTAL	FLORAL CITY	1	A0087	3.00
NORTH COASTAL	FLORAL CITY	1	A0088	2.80
NORTH COASTAL	FOLEY	1	N18	0.00
NORTH COASTAL	FOLEY	2	N19	0.00
NORTH COASTAL	FOLEY	2	N20	0.00
NORTH COASTAL	FORT WHITE	2	A0020	3.80
NORTH COASTAL	GAINESVILLE	2	A1539	0.00
NORTH COASTAL	GAINESVILLE	2	A1540	0.00
NORTH COASTAL	GAINESVILLE	2	T425B99	0.00
NORTH COASTAL	GEORGIA PACIFIC	1	A0045	6.00
NORTH COASTAL	HERNANDO AIRPORT	1	A0430	8.40
NORTH COASTAL	HERNANDO AIRPORT	1	A0431	6.30
NORTH COASTAL	HIGH SPRINGS	1	A0015	8.90
NORTH COASTAL	HIGH SPRINGS	2	A0016	4.40
NORTH COASTAL	HOLDER	1	A0049	6.60
NORTH COASTAL	HOLDER	2	A0048	6.60

NORTH COASTAL	HOMOSASSA	3	A0271	7.60
NORTH COASTAL	HOMOSASSA	3	A0272	6.00
NORTH COASTAL	HULL ROAD	1	A0404	0.00
NORTH COASTAL	HULL ROAD	2	A0405	0.00
NORTH COASTAL	HULL ROAD	2	A0406	0.00
NORTH COASTAL	INDIAN PASS	1	N556	7.70
NORTH COASTAL	INGLIS	2	A0078	6.30
NORTH COASTAL	INVERNESS	1	A0081	7.50
NORTH COASTAL	INVERNESS	1	A0082	6.20
NORTH COASTAL	INVERNESS	1	A0083	6.30
NORTH COASTAL	INVERNESS	2	A0084	9.70
NORTH COASTAL	INVERNESS	2	A0085	10.40
NORTH COASTAL	JASPER	2	N191	4.70
NORTH COASTAL	JASPER	2	N192	4.00
NORTH COASTAL	JENNINGS	1	N195	2.40
NORTH COASTAL	LADY LAKE	1	A0243	7.50
NORTH COASTAL	LADY LAKE	1	A0246	8.70
NORTH COASTAL	LADY LAKE	2	A0244	5.90
NORTH COASTAL	LADY LAKE	2	A0245	6.50
NORTH COASTAL	LAKE WEIR	1	A0061	5.00
NORTH COASTAL	LAKE WEIR	2	A0064	7.80
NORTH COASTAL	LEBANON	1	A0132	3.00
NORTH COASTAL	LURAVILLE	1	A0192	4.50
NORTH COASTAL	MADISON	1	N3	6.90
NORTH COASTAL	MADISON	1	N4	2.60
NORTH COASTAL	MADISON	2	N1	4.50
NORTH COASTAL	MADISON	2	N2	5.80
NORTH COASTAL	MARICAMP	1	A0333	7.30
NORTH COASTAL	MARICAMP	1	A0335	6.30
NORTH COASTAL	MARICAMP	2	A0334	8.00
NORTH COASTAL	MARTIN	1	A0038	9.50
NORTH COASTAL	MARTIN	1	A0039	5.50
NORTH COASTAL	MCINTOSH	1	A0050	3.50
NORTH COASTAL	MCINTOSH	1	A0051	5.10
NORTH COASTAL	MONTICELLO	1	N66	3.60
NORTH COASTAL	MONTICELLO	1	N67	6.00
NORTH COASTAL	MONTICELLO	2	N68	2.40
NORTH COASTAL	MONTICELLO	2	N69	6.00
NORTH COASTAL	NEWBERRY	1	A0094	8.30
NORTH COASTAL	OBRIEN	1	A0379	4.50
NORTH COASTAL	OCHLOCKONEE	1	N37	4.80
NORTH COASTAL	OCHLOCKONEE	1	N38	3.90
NORTH COASTAL	ORANGE BLOSSOM	1	A0392	5.90
NORTH COASTAL	ORANGE BLOSSOM	1	A0310	8.30



NORTH COASTAL	ORANGE BLOSSOM	1	A0389	6.10
NORTH COASTAL	ORANGE BLOSSOM	2	A0309	5.40
NORTH COASTAL	ORANGE BLOSSOM	2	A0388	6.40
NORTH COASTAL	ORANGE BLOSSOM	2	A0394	7.20
NORTH COASTAL	PERRY	1	N7	5.60
NORTH COASTAL	PERRY	1	N8	2.30
NORTH COASTAL	PERRY	2	N10	7.00
NORTH COASTAL	PERRY	2	N9	5.90
NORTH COASTAL	PERRY NORTH	1	N14	7.40
NORTH COASTAL	PERRY NORTH	1	N15	8.90
NORTH COASTAL	PINE RIDGE	1	A0422	6.60
NORTH COASTAL	PINE RIDGE	1	A0423	6.80
NORTH COASTAL	PORT ST. JOE	2	N52	3.80
NORTH COASTAL	PORT ST. JOE	2	N53	4.50
NORTH COASTAL	PORT ST. JOE	2	N54	4.40
NORTH COASTAL	PORT ST. JOE	2	N55	0.20
NORTH COASTAL	PORT ST. JOE INDUSTRIAL	1	N201	2.80
NORTH COASTAL	PORT ST. JOE INDUSTRIAL	1	N202	2.20
NORTH COASTAL	PORT ST. JOE INDUSTRIAL	1	N203	1.00
NORTH COASTAL	RAINBOW SPRINGS	1	A0368	5.30
NORTH COASTAL	RAINBOW SPRINGS	2	A0369	3.90
NORTH COASTAL	REDDICK	1	A0036	5.30
NORTH COASTAL	REDDICK	2	A0034	4.90
NORTH COASTAL	REDDICK	2	A0035	5.40
NORTH COASTAL	SANTOS	1	A0230	7.20
NORTH COASTAL	SANTOS	2	A0231	8.30
NORTH COASTAL	SEMINOLE ASPHALT	1	N27	0.00
NORTH COASTAL	SILVER SPRINGS	3	A0153	8.90
NORTH COASTAL	SILVER SPRINGS	3	A0154	6.10
NORTH COASTAL	SILVER SPRINGS SHORES	1	A0129	7.50
NORTH COASTAL	SILVER SPRINGS SHORES	1	A0130	5.50
NORTH COASTAL	SILVER SPRINGS SHORES	2	A0128	5.50
NORTH COASTAL	SILVER SPRINGS SHORES	2	A0131	8.80
NORTH COASTAL	SOPCHOPPY	1	N327	5.20
NORTH COASTAL	ST. GEORGE ISLAND	1	N233	8.10
NORTH COASTAL	ST. GEORGE ISLAND	1	N234	3.90
NORTH COASTAL	ST. MARKS	1	N331	0.00
NORTH COASTAL	ST. MARKS	1	N332	0.00
NORTH COASTAL	SUWANNEE RIVER PLANT	4	N323	5.70
NORTH COASTAL	SUWANNEE RIVER PLANT	5	N0324	4.00
NORTH COASTAL	SUWANNEE RIVER PLANT	5	N325	5.50
NORTH COASTAL	TANGERINE	3	A0262	9.50
NORTH COASTAL	TANGERINE	3	A0263	4.90
NORTH COASTAL	TANGERINE	3	A0264	4.40

NORTH COASTAL	TRENTON	1	A0090	6.00
NORTH COASTAL	TRENTON	1	A0091	2.00
NORTH COASTAL	TROPIC TERRACE	1	A0212	6.80
NORTH COASTAL	TROPIC TERRACE	2	A0207	6.00
NORTH COASTAL	TROPIC TERRACE	2	A0208	3.00
NORTH COASTAL	TWIN COUNTY RANCH	1	A0216	4.80
NORTH COASTAL	TWIN COUNTY RANCH	2	A0218	5.10
NORTH COASTAL	TWIN COUNTY RANCH	2	A0219	3.70
NORTH COASTAL	UNIVERSITY OF FLORIDA	1	A0027	0.00
NORTH COASTAL	UNIVERSITY OF FLORIDA	1	A0958	0.00
NORTH COASTAL	UNIVERSITY OF FLORIDA	1	A0959	0.00
NORTH COASTAL	UNIVERSITY OF FLORIDA	2	A0956	0.00
NORTH COASTAL	UNIVERSITY OF FLORIDA	2	A0957	0.00
NORTH COASTAL	UNIVERSITY OF FLORIDA	3	A0026	0.00
NORTH COASTAL	UNIVERSITY OF FLORIDA	3	A0028	0.00
NORTH COASTAL	WAUKEENAH	1	N64	2.40
NORTH COASTAL	WAUKEENAH	1	N65	2.10
NORTH COASTAL	WEIRSDALE	1	A0321	7.20
NORTH COASTAL	WEIRSDALE	2	A0322	5.70
NORTH COASTAL	WHITE SPRINGS	1	N375	2.70
NORTH COASTAL	WILDWOOD CITY	1	A0395	7.30
NORTH COASTAL	WILDWOOD CITY	1	A0396	6.70
NORTH COASTAL	WILLISTON	1	A0124	7.90
NORTH COASTAL	WILLISTON	2	A0125	8.10
NORTH COASTAL	ZUBER	1	A0202	8.90
NORTH COASTAL	ZUBER	2	A0204	6.80
NORTH COASTAL	ZUBER	2	A0205	7.60
NORTH CENTRAL	ALAFAYA	2	W0289	9.10
NORTH CENTRAL	ALAFAYA	2	W0290	8.50
NORTH CENTRAL	ALAFAYA	3	W0297	9.50
NORTH CENTRAL	ALAFAYA	3	W0298	10.20
NORTH CENTRAL	ALTAMONTE	1	M0571	5.90
NORTH CENTRAL	ALTAMONTE	1	M0572	9.50
NORTH CENTRAL	ALTAMONTE	1	M0573	3.20
NORTH CENTRAL	ALTAMONTE	1	M0574	5.50
NORTH CENTRAL	ALTAMONTE	2	M0575	7.10
NORTH CENTRAL	ALTAMONTE	2	M0576	7.40
NORTH CENTRAL	ALTAMONTE	2	M0578	9.20
NORTH CENTRAL	ALTAMONTE	2	M0579	8.90
NORTH CENTRAL	APOPKA SOUTH	1	M0723	7.70
NORTH CENTRAL	APOPKA SOUTH	1	M0724	4.60
NORTH CENTRAL	APOPKA SOUTH	2	M0725	9.60
NORTH CENTRAL	APOPKA SOUTH	2	M0726	5.40
NORTH CENTRAL	APOPKA SOUTH	2	M0727	4.90

NORTH CENTRAL	APOPKA SOUTH	3	M0720	9.30
NORTH CENTRAL	APOPKA SOUTH	3	M0721	9.00
NORTH CENTRAL	BARBERVILLE	1	W0902	6.90
NORTH CENTRAL	BARBERVILLE	2	W0903	1.90
NORTH CENTRAL	BARBERVILLE	2	W0904	8.90
NORTH CENTRAL	BAY RIDGE	1	M0447	7.80
NORTH CENTRAL	BAY RIDGE	1	M0453	7.10
NORTH CENTRAL	BAY RIDGE	2	M0445	3.40
NORTH CENTRAL	BAY RIDGE	2	M0451	7.30
NORTH CENTRAL	BITHLO	1	W0951	10.40
NORTH CENTRAL	BITHLO	1	W0952	10.20
NORTH CENTRAL	BITHLO	1	W0953	7.30
NORTH CENTRAL	BITHLO	2	W0954	8.10
NORTH CENTRAL	BITHLO	2	W0955	9.90
NORTH CENTRAL	CASSADAGA	2	W0523	9.30
NORTH CENTRAL	CASSADAGA	2	W0524	7.40
NORTH CENTRAL	CASSADAGA	3	W0515	9.10
NORTH CENTRAL	CASSADAGA	3	W0516	7.80
NORTH CENTRAL	CASSELBERRY	1	W0017	6.90
NORTH CENTRAL	CASSELBERRY	1	W0018	4.90
NORTH CENTRAL	CASSELBERRY	1	W0019	8.70
NORTH CENTRAL	CASSELBERRY	1	W0020	9.10
NORTH CENTRAL	CASSELBERRY	2	W0021	5.10
NORTH CENTRAL	CASSELBERRY	2	W0022	10.40
NORTH CENTRAL	CASSELBERRY	2	W0025	5.80
NORTH CENTRAL	CASSELBERRY	2	W0026	9.80
NORTH CENTRAL	CASSELBERRY	3	W0027	10.40
NORTH CENTRAL	CASSELBERRY	3	W0028	4.70
NORTH CENTRAL	CASSELBERRY	3	W0029	4.80
NORTH CENTRAL	DELAND	1	W0803	9.60
NORTH CENTRAL	DELAND	1	W0804	9.00
NORTH CENTRAL	DELAND	1	W0805	6.70
NORTH CENTRAL	DELAND	2	W0806	7.60
NORTH CENTRAL	DELAND	2	W0807	9.70
NORTH CENTRAL	DELAND	2	W0808	8.00
NORTH CENTRAL	DELAND	3	W0809	9.10
NORTH CENTRAL	DELAND EAST	1	W1108	9.10
NORTH CENTRAL	DELAND EAST	1	W1109	5.10
NORTH CENTRAL	DELAND EAST	1	W1110	8.80
NORTH CENTRAL	DELAND EAST	2	W1105	6.10
NORTH CENTRAL	DELAND EAST	2	W1106	5.90
NORTH CENTRAL	DELAND EAST	2	W1107	8.10
NORTH CENTRAL	DELAND EAST	3	W1102	7.80
NORTH CENTRAL	DELAND EAST	3	W1103	7.20

NORTH CENTRAL	DELAND EAST	3	W1104	6.90
NORTH CENTRAL	DELTONA	1	W4555	9.90
NORTH CENTRAL	DELTONA	1	W4561	9.40
NORTH CENTRAL	DELTONA	1	W4567	7.40
NORTH CENTRAL	DELTONA	2	W4558	7.60
NORTH CENTRAL	DELTONA	2	W4564	8.80
NORTH CENTRAL	DELTONA	2	W4565	6.40
NORTH CENTRAL	DELTONA	3	W4553	7.80
NORTH CENTRAL	DELTONA	3	W4556	8.10
NORTH CENTRAL	DELTONA	3	W4562	9.60
NORTH CENTRAL	DELTONA	3	W4550	9.60
NORTH CENTRAL	DELTONA EAST	2	W0123	9.60
NORTH CENTRAL	DELTONA EAST	2	W0132	9.20
NORTH CENTRAL	DELTONA EAST	3	W0121	10.30
NORTH CENTRAL	DELTONA EAST	3	W0124	9.60
NORTH CENTRAL	DELTONA EAST	3	W0130	9.20
NORTH CENTRAL	DOUGLAS AVENUE	1	M1704	5.40
NORTH CENTRAL	DOUGLAS AVENUE	1	M1707	5.90
NORTH CENTRAL	DOUGLAS AVENUE	1	M1710	0.00
NORTH CENTRAL	DOUGLAS AVENUE	2	M1706	9.90
NORTH CENTRAL	DOUGLAS AVENUE	2	M1709	6.80
NORTH CENTRAL	DOUGLAS AVENUE	2	M1712	7.30
NORTH CENTRAL	EAST ORANGE	1	W0273	4.40
NORTH CENTRAL	EAST ORANGE	1	W0276	3.30
NORTH CENTRAL	EAST ORANGE	2	W0250	9.50
NORTH CENTRAL	EAST ORANGE	2	W0253	5.90
NORTH CENTRAL	EAST ORANGE	2	W0265	7.70
NORTH CENTRAL	EAST ORANGE	2	W0271	7.10
NORTH CENTRAL	EAST ORANGE	3	W0252	10.60
NORTH CENTRAL	EAST ORANGE	3	W0255	6.50
NORTH CENTRAL	EAST ORANGE	3	W0274	11.20
NORTH CENTRAL	EAST ORANGE	3	W0281	11.10
NORTH CENTRAL	EATONVILLE	1	M1131	5.10
NORTH CENTRAL	EATONVILLE	1	M1132	9.80
NORTH CENTRAL	EATONVILLE	1	M1133	5.20
NORTH CENTRAL	EATONVILLE	2	M1135	9.50
NORTH CENTRAL	EATONVILLE	2	M1136	6.30
NORTH CENTRAL	EATONVILLE	2	M1137	7.10
NORTH CENTRAL	EATONVILLE	3	M1138	5.60
NORTH CENTRAL	EATONVILLE	3	M1139	8.60
NORTH CENTRAL	ECON	1	W0320	9.10
NORTH CENTRAL	ECON	1	W0326	8.50
NORTH CENTRAL	ECON	1	W0329	10.10
NORTH CENTRAL	ECON	2	W0318	5.50

NORTH CENTRAL	ECON	2	W0321	7.70
NORTH CENTRAL	ECON	2	W0324	9.23
NORTH CENTRAL	ECON	2	W0327	11.60
NORTH CENTRAL	EUSTIS	1	M0503	6.20
NORTH CENTRAL	EUSTIS	1	M0504	10.00
NORTH CENTRAL	EUSTIS	2	M0499	6.20
NORTH CENTRAL	EUSTIS	2	M0500	5.10
NORTH CENTRAL	EUSTIS	2	M0501	4.10
NORTH CENTRAL	EUSTIS SOUTH	1	M1057	10.00
NORTH CENTRAL	EUSTIS SOUTH	1	M1058	9.60
NORTH CENTRAL	EUSTIS SOUTH	1	M1059	6.20
NORTH CENTRAL	EUSTIS SOUTH	2	M1054	5.50
NORTH CENTRAL	EUSTIS SOUTH	2	M1055	8.50
NORTH CENTRAL	EUSTIS SOUTH	2	M1056	9.70
NORTH CENTRAL	FERN PARK	1	M0907	5.20
NORTH CENTRAL	FERN PARK	1	M0908	5.10
NORTH CENTRAL	FERN PARK	1	M0909	5.50
NORTH CENTRAL	KELLER ROAD	1	M0001	10.40
NORTH CENTRAL	KELLER ROAD	1	M0003	10.10
NORTH CENTRAL	KELLER ROAD	2	M0002	1.40
NORTH CENTRAL	KELLER ROAD	2	M0004	7.80
NORTH CENTRAL	KELLY PARK	2	M0821	4.20
NORTH CENTRAL	KELLY PARK	2	M0822	4.60
NORTH CENTRAL	LAKE ALOMA	1	W0151	5.80
NORTH CENTRAL	LAKE ALOMA	1	W0153	7.70
NORTH CENTRAL	LAKE ALOMA	2	W0158	3.80
NORTH CENTRAL	LAKE ALOMA	2	W0161	9.70
NORTH CENTRAL	LAKE EMMA	1	M0425	2.50
NORTH CENTRAL	LAKE EMMA	1	M0426	6.50
NORTH CENTRAL	LAKE EMMA	1	M0427	4.00
NORTH CENTRAL	LAKE EMMA	1	M0428	7.30
NORTH CENTRAL	LAKE EMMA	2	M0421	7.30
NORTH CENTRAL	LAKE EMMA	2	M0422	8.50
NORTH CENTRAL	LAKE EMMA	2	M0423	3.40
NORTH CENTRAL	LAKE EMMA	2	M0424	4.50
NORTH CENTRAL	LAKE HELEN	1	W1700	5.30
NORTH CENTRAL	LAKE HELEN	2	W1701	10.00
NORTH CENTRAL	LAKE HELEN	2	W1704	7.20
NORTH CENTRAL	LISBON	1	M1518	5.80
NORTH CENTRAL	LISBON	1	M1520	5.70
NORTH CENTRAL	LISBON	2	M1517	7.30
NORTH CENTRAL	LISBON	2	M1519	6.60
NORTH CENTRAL	LOCKHART	1	M0400	10.20
NORTH CENTRAL	LOCKHART	1	M0406	8.20

NORTH CENTRAL	LOCKHART	1	M0412	9.80
NORTH CENTRAL	LOCKHART	2	M0402	8.60
NORTH CENTRAL	LOCKHART	2	M0408	4.30
NORTH CENTRAL	LOCKHART	2	M0414	5.60
NORTH CENTRAL	LOCKHART	3	M0417	9.40
NORTH CENTRAL	LOCKWOOD	1	W0480	8.10
NORTH CENTRAL	LOCKWOOD	1	W0481	7.90
NORTH CENTRAL	LOCKWOOD	1	W0482	8.70
NORTH CENTRAL	LONGWOOD	1	M0142	8.60
NORTH CENTRAL	LONGWOOD	1	M0143	6.70
NORTH CENTRAL	LONGWOOD	2	M0144	7.80
NORTH CENTRAL	LONGWOOD	2	M0145	7.60
NORTH CENTRAL	MAITLAND	1	M0081	6.90
NORTH CENTRAL	MAITLAND	1	M0082	8.60
NORTH CENTRAL	MAITLAND	1	M0084	3.30
NORTH CENTRAL	MAITLAND	2	M0085	5.70
NORTH CENTRAL	MAITLAND	2	W0086	5.20
NORTH CENTRAL	MAITLAND	2	W0087	9.70
NORTH CENTRAL	MAITLAND	3	M0080	9.60
NORTH CENTRAL	MAITLAND	3	W0079	8.60
NORTH CENTRAL	MYRTLE LAKE	2	M0648	8.60
NORTH CENTRAL	MYRTLE LAKE	2	M0649	8.90
NORTH CENTRAL	MYRTLE LAKE	2	M0650	7.90
NORTH CENTRAL	MYRTLE LAKE	2	M0651	7.80
NORTH CENTRAL	MYRTLE LAKE	3	M0657	9.70
NORTH CENTRAL	MYRTLE LAKE	3	M0658	6.20
NORTH CENTRAL	MYRTLE LAKE	3	M0659	8.40
NORTH CENTRAL	NORTH LONGWOOD	6	M1749	8.90
NORTH CENTRAL	NORTH LONGWOOD	6	M1755	6.40
NORTH CENTRAL	NORTH LONGWOOD	6	M1758	6.00
NORTH CENTRAL	NORTH LONGWOOD	7	M1751	10.00
NORTH CENTRAL	NORTH LONGWOOD	7	M1757	6.10
NORTH CENTRAL	NORTH LONGWOOD	7	M1760	5.80
NORTH CENTRAL	NORTH LONGWOOD	7	M1763	8.30
NORTH CENTRAL	ORANGE CITY	2	W0372	9.80
NORTH CENTRAL	ORANGE CITY	2	W0378	7.80
NORTH CENTRAL	ORANGE CITY	3	W0370	9.60
NORTH CENTRAL	ORANGE CITY	3	W0376	9.20
NORTH CENTRAL	OVIEDO	1	W0171	6.80
NORTH CENTRAL	OVIEDO	1	W0172	8.30
NORTH CENTRAL	OVIEDO	2	W0174	8.40
NORTH CENTRAL	OVIEDO	2	W0175	5.30
NORTH CENTRAL	OVIEDO	3	W0176	8.60
NORTH CENTRAL	OVIEDO	3	W0181	6.40



NORTH CENTRAL	PIEDMONT	1	M0475	8.20
NORTH CENTRAL	PIEDMONT	1	M0476	6.00
NORTH CENTRAL	PIEDMONT	1	M0477	7.70
NORTH CENTRAL	PIEDMONT	1	M0478	7.90
NORTH CENTRAL	PIEDMONT	2	M0471	10.00
NORTH CENTRAL	PIEDMONT	2	M0472	7.10
NORTH CENTRAL	PIEDMONT	2	M0473	10.30
NORTH CENTRAL	PIEDMONT	2	M0474	9.10
NORTH CENTRAL	PLYMOUTH	1	M0702	0.70
NORTH CENTRAL	PLYMOUTH	1	M0704	7.30
NORTH CENTRAL	PLYMOUTH	2	M0706	1.00
NORTH CENTRAL	PLYMOUTH	2	M0707	5.10
NORTH CENTRAL	SPRING LAKE	1	M0666	5.60
NORTH CENTRAL	SPRING LAKE	1	M0667	6.10
NORTH CENTRAL	SPRING LAKE	1	M0668	9.70
NORTH CENTRAL	SPRING LAKE	2	M0662	6.70
NORTH CENTRAL	SPRING LAKE	2	M0663	3.70
NORTH CENTRAL	SPRING LAKE	2	M0664	9.60
NORTH CENTRAL	SPRING LAKE	3	M0669	7.00
NORTH CENTRAL	SPRING LAKE	3	M0670	7.20
NORTH CENTRAL	SUNFLOWER	1	W0469	6.20
NORTH CENTRAL	SUNFLOWER	1	W0470	10.80
NORTH CENTRAL	SUNFLOWER	1	W0471	8.10
NORTH CENTRAL	SUNFLOWER	2	W0472	8.80
NORTH CENTRAL	SUNFLOWER	2	W0473	9.70
NORTH CENTRAL	SUNFLOWER	2	W0474	10.80
NORTH CENTRAL	TURNER PLANT	8	W0761	7.30
NORTH CENTRAL	TURNER PLANT	8	W0762	6.40
NORTH CENTRAL	TURNER PLANT	10	W0763	9.50
NORTH CENTRAL	TURNER PLANT	10	W0764	5.80
NORTH CENTRAL	UCF	1	W1012	8.40
NORTH CENTRAL	UCF	1	W1013	7.70
NORTH CENTRAL	UCF	1	W1014	7.60
NORTH CENTRAL	UCF	2	W1015	8.50
NORTH CENTRAL	UCF	2	W1016	7.60
NORTH CENTRAL	UCF	2	W1017	9.80
NORTH CENTRAL	UCF	2	W1018	8.10
NORTH CENTRAL	UCF NORTH	1	W0942	2.60
NORTH CENTRAL	UCF NORTH	1	W0980	8.70
NORTH CENTRAL	UCF NORTH	1	W0983	11.20
NORTH CENTRAL	UCF NORTH	1	W0989	0.60
NORTH CENTRAL	UCF NORTH	2	W0940	3.20
NORTH CENTRAL	UCF NORTH	2	W0981	7.80
NORTH CENTRAL	UCF NORTH	2	W0982	8.50

NORTH CENTRAL	UCF NORTH	2	W0988	10.90
NORTH CENTRAL	UMATILLA	1	M4407	8.30
NORTH CENTRAL	UMATILLA	1	M4408	5.20
NORTH CENTRAL	UMATILLA	2	M4405	6.00
NORTH CENTRAL	WEKIVA	1	M0101	5.80
NORTH CENTRAL	WEKIVA	1	M0106	6.20
NORTH CENTRAL	WEKIVA	1	M0107	7.00
NORTH CENTRAL	WEKIVA	1	M0112	8.00
NORTH CENTRAL	WEKIVA	1	M0115	4.80
NORTH CENTRAL	WEKIVA	2	M0103	5.50
NORTH CENTRAL	WEKIVA	2	M0104	6.90
NORTH CENTRAL	WEKIVA	2	M0109	5.60
NORTH CENTRAL	WEKIVA	2	M0110	8.70
NORTH CENTRAL	WEKIVA	2	M0113	6.20
NORTH CENTRAL	WELCH ROAD	1	M0543	5.30
NORTH CENTRAL	WELCH ROAD	1	M0550	8.60
NORTH CENTRAL	WELCH ROAD	1	M0552	6.00
NORTH CENTRAL	WELCH ROAD	3	M0545	9.60
NORTH CENTRAL	WELCH ROAD	3	M0548	6.80
NORTH CENTRAL	WELCH ROAD	3	M0554	8.00
NORTH CENTRAL	WEST CHAPMAN	2	W0705	4.60
NORTH CENTRAL	WEST CHAPMAN	2	W0702	5.80
NORTH CENTRAL	WEST CHAPMAN	3	W0700	10.50
NORTH CENTRAL	WEST CHAPMAN	3	W0708	9.20
NORTH CENTRAL	WEST CHAPMAN	3	W0703	9.00
NORTH CENTRAL	WINTER PARK	4	W0014	2.60
NORTH CENTRAL	WINTER PARK	4	W0015	7.10
NORTH CENTRAL	WINTER PARK	4	W0016	5.70
NORTH CENTRAL	WINTER PARK EAST	1	W0924	9.40
NORTH CENTRAL	WINTER PARK EAST	1	W0925	11.10
NORTH CENTRAL	WINTER PARK EAST	1	W0926	9.10
NORTH CENTRAL	WINTER PARK EAST	1	W0927	8.40
NORTH CENTRAL	WINTER PARK EAST	3	W0928	9.40
NORTH CENTRAL	WINTER PARK EAST	3	W0929	9.30
NORTH CENTRAL	WINTER PARK EAST	3	W0930	6.20
NORTH CENTRAL	WINTER PARK EAST	3	W0931	9.90
NORTH CENTRAL	WINTER SPRINGS	1	W0192	8.10
NORTH CENTRAL	WINTER SPRINGS	1	W0194	7.30
NORTH CENTRAL	WINTER SPRINGS	2	W0195	8.30
NORTH CENTRAL	WINTER SPRINGS	2	W0196	8.80
NORTH CENTRAL	WINTER SPRINGS	3	W0187	8.50
NORTH CENTRAL	WINTER SPRINGS	3	W0188	9.30
NORTH CENTRAL	WINTER SPRINGS	3	W0189	8.40
NORTH CENTRAL	ZELLWOOD	1	M0031	7.00

NORTH CENTRAL	ZELLWOOD	1	M0032	7.40
NORTH CENTRAL	ZELLWOOD	2	M0033	7.80
NORTH CENTRAL	ZELLWOOD	2	M0034	6.80

# **ATTACHEMENT H**



Received Jan 1 to Dec 31, 2012

63 complaints

PEF logged as Power Quality & Reliability

Complaint Status	Date Received	PSC Complaint #	PEF Category	PSC Ruling	PSC Closure Code
Complete	1/4/2012	1046666E	Equipment/Facilities Issues	Non Infraction	GI-17 SAFETY ISSUES
Complete	1/5/2012	1046858E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	1/20/2012	1049238E	Equipment/Facilities Issues	Non Infraction	GI-30 QUALITY OF SERVICE
Complete	2/13/2012	1052721E	Street Lights/Area Lights-Repair	Infraction	ES-03 STREET LIGHT/OUTDOOR LIGHTING OUTAGES
Complete	2/13/2012	1052653E	Equipment/Facilities Issues	Infraction	EB-49 FAILURE TO RESPOND TO TIMELY COMMISSION INQUIRY
Complete	2/13/2012	1052525E	Outages - Frequent	Non Infraction	GI-25 IMPROPER BILLING
Complete	3/1/2012	1054955E	Outages - Momentary	Non Infraction	GI-15 OUTAGES
Complete	3/19/2012	1057171E	Equipment/Facilities Issues	Non Infraction	GI-17 SAFETY ISSUES
Complete	4/2/2012	1058867E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	4/5/2012	1059454E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	4/10/2012	1059919E	Outages - Momentary	Non Infraction	GI-15 OUTAGES
Complete	4/13/2012	1060461E	Equipment/Facilities Issues	Non Infraction	GI-30 QUALITY OF SERVICE
Complete	4/16/2012	1060729E	Street Lights/Area Lights-Repair	Non Infraction	GI-17 SAFETY ISSUES
Complete	4/19/2012	1061049E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	5/7/2012	1063276E	Outages - Frequent	Non Infraction	GI-25 IMPROPER BILLING
Complete	5/21/2012	1064855E	Tree Trimming	Non Infraction	GI-30 QUALITY OF SERVICE
Complete	5/22/2012	1064957E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	6/7/2012	1066893E	Tree Trimming	Non Infraction	GI-25 IMPROPER BILLING
Complete	6/13/2012	1067553E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	6/13/2012	1067628E	Outages - Delay in Restoring Service	Non Infraction	GI-30 QUALITY OF SERVICE
Complete	6/18/2012	1068190E	Outages - Frequent	Non Infraction	GI-72 3-DAY RESOLUTION
Complete	7/3/2012	1070383E	Outages - Momentary	Non Infraction	GI-17 SAFETY ISSUES
Complete	7/9/2012	1070762E	Street Lights/Area Lights-Repair	Non Infraction	GI-11 REPAIR SERVICE
Complete	7/10/2012	1071008E	Outages - Momentary	Non Infraction	GI-15 OUTAGES
Complete	7/23/2012	1072752E	Equipment/Facilities Issues	Non Infraction	GI-30 QUALITY OF SERVICE
Complete	7/23/2012	1072793E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	7/23/2012	1072937E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	7/23/2012	1072946E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	7/23/2012	1072951E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	8/3/2012	1074525E	Tree Trimming	Non Infraction	GI-30 QUALITY OF SERVICE
Complete	8/16/2012	1076090E	Tree Trimming	Non Infraction	GI-15 OUTAGES
Complete	8/17/2012	1076246E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	8/17/2012	1076386E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	8/20/2012	1076575E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	8/21/2012	1076851E	Outages - Momentary	Non Infraction	GI-15 OUTAGES
Complete	8/22/2012	1076939E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	8/24/2012	1077234E	Tree Trimming	Non Infraction	GI-15 OUTAGES
Complete	8/28/2012	1077727E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	8/30/2012	1078293E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	9/4/2012	1078538E	Outages - Delay in Restoring Service	Non Infraction	GI-17 SAFETY ISSUES
Complete	9/10/2012	1079825E	Outages - Momentary	Non Infraction	GI-15 OUTAGES
Complete	9/10/2012	1079824E	Outages - Momentary	Non Infraction	GI-15 OUTAGES
Complete	9/17/2012	1081097	Equipment/Facilities Issues	Non Infraction	GI-17 SAFETY ISSUES
Complete	10/1/2012	1083502E	Tree Trimming	Non Infraction	GI-30 QUALITY OF SERVICE
Complete	10/1/2012	1083488E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	10/4/2012	1084183E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	10/8/2012	1084577E	Tree Trimming	Non Infraction	GI-17 SAFETY ISSUES
Complete	10/8/2012	1084579E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	10/9/2012	1084751E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	10/9/2012	1084726E	Street Lights/Area Lights-Repair	Non Infraction	GI-11 REPAIR SERVICE
Complete	10/9/2012	1084742E	Outages - Frequent	Non Infraction	GI-15 OUTAGES

Pending	10/15/2012	1085510E	Tree Trimming	Non Infraction	GI-72 3-DAY RESOLUTION
Complete	10/15/2012	1085441E	Outages - Momentary	Non Infraction	GI-15 OUTAGES
Complete	10/18/2012	1086153E	Outages - Momentary	Non Infraction	GI-15 OUTAGES
Complete	10/18/2012	1086189E	Outages - Momentary	Non Infraction	GI-15 OUTAGES
Complete	10/18/2012	1086220E	Equipment/Facilities Issues	Non Infraction	GI-11 REPAIR SERVICE
Complete	10/31/2012	1087837E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	11/8/2012	1088766E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	11/19/2012	1089991E	Outages - Frequent	Non Infraction	GI-15 OUTAGES
Complete	11/28/2012	1091039E	Outages - Frequent		
Complete	12/3/2012	1091547E	Street Lights/Area Lights-Repair	Non Infraction	GI-11 REPAIR SERVICE
Complete	12/10/2012	1092530E	Equipment/Facilities Issues		
Pending	12/26/2012	1094390E	Outages - Frequent		



Received Jan 1 to Dec 31, 2012

63 Complaints

PEF logged as Power Quality & Reliability

Date Received	PSC Complaint #	PEF Category	PSC Closure Code
1/4/2012	1046666E	Equipment/Facilities Issues	GI-17 SAFETY ISSUES
1/5/2012	1046858E	Outages - Frequent	GI-15 OUTAGES
1/20/2012	1049238E	Equipment/Facilities Issues	GI-30 QUALITY OF SERVICE
3/1/2012	1054955E	Outages - Momentary	GI-15 OUTAGES
3/19/2012	1057171E	Equipment/Facilities Issues	GI-17 SAFETY ISSUES
4/2/2012	1058867E	Outages - Frequent	GI-15 OUTAGES
4/5/2012	1059454E	Outages - Frequent	GI-15 OUTAGES
4/10/2012	1059919E	Outages - Momentary	GI-15 OUTAGES
4/13/2012	1060461E	Equipment/Facilities Issues	GI-30 QUALITY OF SERVICE
4/19/2012	1061049E	Outages - Frequent	GI-15 OUTAGES
5/21/2012	1064855E	Tree Trimming	GI-30 QUALITY OF SERVICE
5/22/2012	1064957E	Outages - Frequent	GI-15 OUTAGES
6/13/2012	1067628E	Outages - Delay in Restoring Service	GI-30 QUALITY OF SERVICE
6/13/2012	1067553E	Outages - Frequent	GI-15 OUTAGES
7/3/2012	1070383E	Outages - Momentary	GI-17 SAFETY ISSUES
7/10/2012	1071008E	Outages - Momentary	GI-15 OUTAGES
7/23/2012	1072951E	Outages - Frequent	GI-15 OUTAGES
7/23/2012	1072752E	Equipment/Facilities Issues	GI-30 QUALITY OF SERVICE
7/23/2012	1072937E	Outages - Frequent	GI-15 OUTAGES
7/23/2012	1072793E	Outages - Frequent	GI-15 OUTAGES
7/23/2012	1072946E	Outages - Frequent	GI-15 OUTAGES
8/3/2012	1074525E	Tree Trimming	GI-30 QUALITY OF SERVICE
8/16/2012	1076090E	Tree Trimming	GI-15 OUTAGES
8/17/2012	1076386E	Outages - Frequent	GI-15 OUTAGES
8/17/2012	1076246E	Outages - Frequent	GI-15 OUTAGES
8/20/2012	1076575E	Outages - Frequent	GI-15 OUTAGES
8/21/2012	1076851E	Outages - Momentary	GI-15 OUTAGES
8/22/2012	1076939E	Outages - Frequent	GI-15 OUTAGES

Received Jan 1 to Dec 31, 2012

102 Complaints

PSC Service Reliability Only Closure Codes

Date Received	PSC Complaint #	PEF Category	PSC Closure Code
1/4/2012	1046666E	Equipment/Facilities Issues	GI-17 SAFETY ISSUES
1/5/2012	1046858E	Outages - Frequent	GI-15 OUTAGES
1/20/2012	1049238E	Equipment/Facilities Issues	GI-30 QUALITY OF SERVICE
3/1/2012	1054955E	Outages - Momentary	GI-15 OUTAGES
3/19/2012	1057171E	Equipment/Facilities Issues	GI-17 SAFETY ISSUES
4/2/2012	1058867E	Outages - Frequent	GI-15 OUTAGES
4/5/2012	1059454E	Outages - Frequent	GI-15 OUTAGES
4/10/2012	1059919E	Outages - Momentary	GI-15 OUTAGES
4/13/2012	1060461E	Equipment/Facilities Issues	GI-30 QUALITY OF SERVICE
4/19/2012	1061049E	Outages - Frequent	GI-15 OUTAGES
5/21/2012	1064855E	Tree Trimming	GI-30 QUALITY OF SERVICE
5/22/2012	1064957E	Outages - Frequent	GI-15 OUTAGES
6/13/2012	1067553E	Outages - Frequent	GI-15 OUTAGES
6/13/2012	1067628E	Outages - Delay in Restoring Service	GI-30 QUALITY OF SERVICE
7/3/2012	1070383E	Outages - Momentary	GI-17 SAFETY ISSUES
7/10/2012	1071008E	Outages - Momentary	GI-15 OUTAGES
7/23/2012	1072946E	Outages - Frequent	GI-15 OUTAGES
7/23/2012	1072951E	Outages - Frequent	GI-15 OUTAGES
7/23/2012	1072937E	Outages - Frequent	GI-15 OUTAGES
7/23/2012	1072793E	Outages - Frequent	GI-15 OUTAGES
7/23/2012	1072752E	Equipment/Facilities Issues	GI-30 QUALITY OF SERVICE
8/3/2012	1074525E	Tree Trimming	GI-30 QUALITY OF SERVICE
8/16/2012	1076090E	Tree Trimming	GI-15 OUTAGES
8/17/2012	1076246E	Outages - Frequent	GI-15 OUTAGES
8/17/2012	1076386E	Outages - Frequent	GI-15 OUTAGES
8/20/2012	1076575E	Outages - Frequent	GI-15 OUTAGES
8/21/2012	1076851E	Outages - Momentary	GI-15 OUTAGES
8/22/2012	1076939E	Outages - Frequent	GI-15 OUTAGES

8/24/2012	1077234E	Tree Trimming	GI-15 OUTAGES
8/28/2012	1077727E	Outages - Frequent	GI-15 OUTAGES
8/30/2012	1078293E	Outages - Frequent	GI-15 OUTAGES
9/4/2012	1078538E	Outages - Delay in Restoring Service	GI-17 SAFETY ISSUES
9/10/2012	1079825E	Outages - Momentary	GI-15 OUTAGES
9/10/2012	1079824E	Outages - Momentary	GI-15 OUTAGES
9/17/2012	1081097	Equipment/Facilities Issues	GI-17 SAFETY ISSUES
10/1/2012	1083502E	Tree Trimming	GI-30 QUALITY OF SERVICE
10/1/2012	1083488E	Outages - Frequent	GI-15 OUTAGES
10/4/2012	1084183E	Outages - Frequent	GI-15 OUTAGES
10/8/2012	1084577E	Tree Trimming	GI-17 SAFETY ISSUES
10/8/2012	1084579E	Outages - Frequent	GI-15 OUTAGES
10/9/2012	1084742E	Outages - Frequent	GI-15 OUTAGES
10/9/2012	1084751E	Outages - Frequent	GI-15 OUTAGES
10/15/2012	1085441E	Outages - Momentary	GI-15 OUTAGES
10/18/2012	1086153E	Outages - Momentary	GI-15 OUTAGES
10/18/2012	1086189E	Outages - Momentary	GI-15 OUTAGES
10/18/2012	1086220E	Equipment/Facilities Issues	GI-11 REPAIR SERVICE
10/31/2012	1087837E	Outages - Frequent	GI-15 OUTAGES
11/8/2012	1088766E	Outages - Frequent	GI-15 OUTAGES
11/19/2012	1089991E	Outages - Frequent	GI-15 OUTAGES
2/13/2012	1052525E	Outages - Frequent	GI-25 IMPROPER BILLING
2/13/2012	1052653E	Equipment/Facilities Issues	EB-49 FAILURE TO RESPOND TO TIMELY COMMISSION INQUIRY
5/7/2012	1063276E	Outages - Frequent	GI-25 IMPROPER BILLING
6/7/2012	1066893E	Tree Trimming	GI-25 IMPROPER BILLING
6/18/2012	1068190E	Outages - Frequent	GI-72 3-DAY RESOLUTION
10/15/2012	1085510E	Tree Trimming	GI-72 3-DAY RESOLUTION
11/28/2012	1091039E	Outages - Frequent	

8/24/2012	1077234E	Tree Trimming	GI-15 OUTAGES
8/28/2012	1077727E	Outages - Frequent	GI-15 OUTAGES
8/30/2012	1078293E	Outages - Frequent	GI-15 OUTAGES
9/4/2012	1078538E	Outages - Delay in Restoring Service	GI-17 SAFETY ISSUES
9/10/2012	1079825E	Outages - Momentary	GI-15 OUTAGES
9/10/2012	1079824E	Outages - Momentary	GI-15 OUTAGES
9/17/2012	1081097	Equipment/Facilities Issues	GI-17 SAFETY ISSUES
10/1/2012	1083488E	Outages - Frequent	GI-15 OUTAGES
10/1/2012	1083502E	Tree Trimming	GI-30 QUALITY OF SERVICE
10/4/2012	1084183E	Outages - Frequent	GI-15 OUTAGES
10/8/2012	1084579E	Outages - Frequent	GI-15 OUTAGES
10/8/2012	1084577E	Tree Trimming	GI-17 SAFETY ISSUES
10/9/2012	1084751E	Outages - Frequent	GI-15 OUTAGES
10/9/2012	1084742E	Outages - Frequent	GI-15 OUTAGES
10/15/2012	1085441E	Outages - Momentary	GI-15 OUTAGES
10/18/2012	1086189E	Outages - Momentary	GI-15 OUTAGES
10/18/2012	1086153E	Outages - Momentary	GI-15 OUTAGES
10/18/2012	1086220E	Equipment/Facilities Issues	GI-11 REPAIR SERVICE
10/31/2012	1087837E	Outages - Frequent	GI-15 OUTAGES
11/8/2012	1088766E	Outages - Frequent	GI-15 OUTAGES
11/19/2012	1089991E	Outages - Frequent	GI-15 OUTAGES
2/13/2012	1052721E	Street Lights/Area Lights-Repair	ES-03 STREET LIGHT/OUTDOOR LIGHTING OUTAGES
4/16/2012	1060729E	Street Lights/Area Lights-Repair	GI-17 SAFETY ISSUES
7/9/2012	1070762E	Street Lights/Area Lights-Repair	GI-11 REPAIR SERVICE
10/9/2012	1084726E	Street Lights/Area Lights-Repair	GI-11 REPAIR SERVICE
12/3/2012	1091547E	Street Lights/Area Lights-Repair	GI-11 REPAIR SERVICE
1/6/2012	1047033E	CIA Charges	GI-30 QUALITY OF SERVICE
1/11/2012	1047856E	Non-Pay Disconnects	GI-28 IMPROPER DISCONNECT

12/10/2012	1092530E	Equipment/Facilities Issues	
12/26/2012	1094390E	Outages - Frequent	
2/13/2012	1052721E	Street Lights/Area Lights-Repair	ES-03 STREET LIGHT/OUTDOOR LIGHTING OUTAGES
4/16/2012	1060729E	Street Lights/Area Lights-Repair	GI-17 SAFETY ISSUES
7/9/2012	1070762E	Street Lights/Area Lights-Repair	GI-11 REPAIR SERVICE
10/9/2012	1084726E	Street Lights/Area Lights-Repair	GI-11 REPAIR SERVICE
12/3/2012	1091547E	Street Lights/Area Lights-Repair	

54 - Total 15 Day identical complaint numbers logged and by PEF and the FPSC.

9 - Total 15 day complaints logged by PEF under Power Quality & Reliability category

1/11/2012	1047747E	Non-Pay Disconnects	ES-14 SERVICE IMPROPERLY DISCONNECTED
1/20/2012	1049148E	Claims	GI-11 REPAIR SERVICE
1/31/2012	1050970E	Non-Pay Disconnects	GI-29 DELAY IN CONNECTION
1/31/2012	1050938E	CIA Charges	GI-30 QUALITY OF SERVICE
2/16/2012	1053099E	Non-Pay Disconnects	GI-28 IMPROPER DISCONNECT
2/23/2012	1054057E	Customer Privacy	GI-30 QUALITY OF SERVICE
3/7/2012	1055807E	Improper/No Delinquent Notice	GI-29 DELAY IN CONNECTION
3/19/2012	1057155E	Service Charge Dispute	GI-28 IMPROPER DISCONNECT
3/22/2012	1057674E	Non-Pay Disconnects	GI-28 IMPROPER DISCONNECT
4/9/2012	1059721E	Claims	GI-15 OUTAGES
4/10/2012	1060034E	Service Delays	GI-30 QUALITY OF SERVICE
4/16/2012	1060568E	Service Delays-New Construction	GI-29 DELAY IN CONNECTION
5/10/2012	1063732E	Claims	GI-15 OUTAGES
5/11/2012	1063793E	Claims	GI-15 OUTAGES
5/14/2012	1064071E	Customer Privacy	GI-30 QUALITY OF SERVICE
5/15/2012	1064159E	Service Charge Dispute	GI-28 IMPROPER DISCONNECT
5/16/2012	1064290E	Service Delays	GI-29 DELAY IN CONNECTION
5/21/2012	1064849E	Claims	GI-28 IMPROPER DISCONNECT
5/29/2012	1065618E	Service Delays	GI-29 DELAY IN CONNECTION
5/29/2012	1065517E	High Bill	GI-30 QUALITY OF SERVICE
6/5/2012	1066585E	Claims	GI-15 OUTAGES
6/12/2012	1067338E	Deposit Issues	GI-30 QUALITY OF SERVICE
6/25/2012	1068958E	Non-Pay Disconnects	GI-28 IMPROPER DISCONNECT
6/27/2012	1069502E	Service Delays-New Construction	GI-29 DELAY IN CONNECTION
7/17/2012	1072146E	Non-Pay Disconnects	GI-28 IMPROPER DISCONNECT
7/27/2012	1073576E	Failure to Follow Up	GI-15 OUTAGES
8/1/2012	1074305E	Payment Options Issue	GI-28 IMPROPER DISCONNECT

8/1/2012	1074261E	Revenue Protection Investigation	GI-29 DELAY IN CONNECTION
8/20/2012	1076473E	Non-Pay Disconnects	GI-29 DELAY IN CONNECTION
9/5/2012	1079253E	Non-Pay Disconnects	GI-28 IMPROPER DISCONNECT
9/11/2012	1080267E	Service Delays	GI-29 DELAY IN CONNECTION
9/19/2012	1081640E	Non-Pay Disconnects	GI-28 IMPROPER DISCONNECT
9/25/2012	1082508E	Service Delays	GI-29 DELAY IN CONNECTION
9/26/2012	1082987E	Revenue Protection Investigation	GI-28 IMPROPER DISCONNECT
9/26/2012	1082997E	Service Delays	GI-30 QUALITY OF SERVICE
10/12/2012	1085353E	Service Delays-New Construction	GI-29 DELAY IN CONNECTION
10/19/2012	1086341E	Non-Pay Disconnects	GI-28 IMPROPER DISCONNECT
10/22/2012	1086460E	Service Delays	GI-29 DELAY IN CONNECTION
10/22/2012	1086533E	Allconnect - Other	GI-30 QUALITY OF SERVICE
11/1/2012	1087879E	Service Charge Dispute	GI-28 IMPROPER DISCONNECT
11/2/2012	1088014E	Service Delays	GI-29 DELAY IN CONNECTION
11/7/2012	1088613E	Revenue Protection Investigation	GI-30 QUALITY OF SERVICE
11/13/2012	1089338E	Service Delays	GI-30 QUALITY OF SERVICE
11/19/2012	1089947E	Non-Pay Disconnects	GI-28 IMPROPER DISCONNECT
11/28/2012	1091007E	Non-Pay Disconnects	GI-30 QUALITY OF SERVICE
12/4/2012	1091641E	Improper/No Delinquent Notice	GI-30 QUALITY OF SERVICE

# **ATTACHEMENT I**

Storm Hardening Projects - 2010 - 2012 Plan

Op Center	Project Name	Sub Category	Status	Region
Lake Buena vista	Celebration	Feeder Tie	Completed - 2010	South Central
Highlands	Dinner Lake Feeder Exits	OH to UG Conversion	Completed - 2010	South Central
Lake Wales	Lake Marion Loop	Feeder Tie	Completed - 2010	South Central
Southeast Orlando	Simmons Rd	Extreme Wind Upgrades	Completed - 2010	South Central
Southeast Orlando	Millinockett	Feeder Tie	Completed - 2010	South Central
Apopka	Eustis US 441/19A	Feeder Tie	Completed - 2010	North Central
Apopka	Reconductor Marden Rd	Small Reconductor	Completed - 2010	North Central
Apopka	Ponkan Rd	Feeder Tie	Completed - 2010	North Central
Longwood	Gateway Dr	Feeder Tie	Completed - 2010	North Central
Jamestown	Black Hammock	Feeder Tie	Completed - 2010	North Central
Jamestown	Union Park	Small Reconductor	Completed - 2010	North Central
Jamestown	Willow Run OH-UG	OH to UG Conversion	Completed - 2010	North Central
Jamestown	N Pine Ave & Palm Dr	Feeder Tie	Completed - 2010	North Central
Seven Springs	C152	Feeder Tie	Completed - 2010	South Coastal
Seven Springs	Betmar Feeder Tie	Feeder Tie	Completed - 2010	South Coastal
Seven Springs	Suncoast Parkway	Feeder Tie	Completed - 2010	South Coastal
Seven Springs	Eiland Blvd Feeder Tie	Feeder Tie	Completed - 2010	South Coastal
Monticello	On US 90	Back lot to Front lot conversion	Completed - 2011	North Coastal
Monticello	SR 65 Line Relocation	Back lot to Front lot conversion	Completed - 2011	North Coastal
St-Petersburg	22nd St. S reconductor- From 18th Ave S to 22nd ave S	Feeder Tie	Completed - 2011	South Coastal
St-Petersburg	22nd Ave. S Reconductor-from 22nd St south to 31 st street S	Feeder Tie	Completed - 2011	South Coastal
St-Petersburg	62nd Ave. Reconductor (NE area improvement)	Feeder Tie	Completed - 2011	South Coastal
St-Petersburg	9th St. South Reconductor (X360 to X308)	Feeder Tie	Completed - 2011	South Coastal
Seven Springs	Sail Dr., New Port Richey\Sail Dr.pptx	OH to UG Conversion	Completed - 2011	South Coastal
Apopka	Reconductor Wekiva Pines Blvd., Sorrento	Back lot to Front lot conversion	Completed - 2011	North Central
Lake Wales	K966 Loughman Reconductor 17&92	Feeder Tie	Completed - 2011	South Central
Monticello	St George Island - UG Submersible	Submersible UG	Completed - 2011	North Coastal
Lake Wales	Feeder tie K1521 and K1526	Feeder Tie	Completed - 2011	South Central
Longwood	I4-Crossing at Fairbanks Av.	OH to UG Conversion	Completed - 2011	North Central
Lake Buena vista	Ficquette Rd Feeder tie K792 to K1110	Feeder Tie	Completed - 2011	South Central
Longwood	I 4 crossing- Dartmouth	OH to UG Conversion	Completed - 2011	North Central
St-Petersburg	Connecticut Ave. Reconductor (NE area improvement)	Feeder Tie	Completed - 2012	South Coastal
Monticello	Madison N2, N3	Feeder Tie	Completed - 2012	North Coastal
Southeast Orlando	Dallas Blvd	Extreme Wind Upgrades	Completed - 2012	South Central
Apopka	Feeder tie M0447 to M0545	Feeder Tie	Completed - 2012	North Central
Jamestown	Rouse Rd	Feeder Tie	Completed - 2012	North Central
Seven Springs	C140/C141 Feeder Tie	Feeder Tie	Complete - Jan 2013	South Coastal
Apopka	Vulcan Road Feeder Tie	Feeder Tie	Complete - Jan 2013	North Central
Clermont	Buck Hill Crossing	OH to UG Conversion	Completed - 2012	South Central
Clermont	CR 455 Crossing	OH to UG Conversion	Expected Completion in Dec 2013 (Delayed due to permitting complications.)	South Central
Clermont	Old SR 50 Crossing	OH to UG Conversion	Expected Completion in Dec 2013 (Delayed due to permitting complications.)	South Central
Deland	Dirksend Phase 1	Reconductor	Complete - Jan 2013	North Central
Highlands	Dinner Lake K1690	Back lot to Front lot conversion	Complete - 2012	South Central
Jamestown	Pebble Beach Blvd	Feeder Tie	In Progress - April 2013	North Central
Jamestown	Chapman Rd	Feeder Tie	Complete - Jan 2013	North Central
Monticello	St George Island	Extreme Wind Upgrades	Complete - 2012	North Coastal
Winter Garden	Roper Rd	Feeder Tie	Complete - 2012	South Central



Storm Hardening Projects - 2010 - 2012 Plan

Monticello	Alligator Point Extreme Wind Phase 1	Extreme Wind Upgrades	Complete - 2012	North Coastal
Walsingham	Seminole Bridge reconductor	OH to UG Conversion	In Progress - March 2013	South Coastal
Apopka	Fox Valley Dr	Back lot conversion	Complete - 2012	North Central
Deland	Feeder Tie W808	Feeder Tie	Complete - 2012	North Central
Deland	Cassadaga Rd I4 Crossing	OH to UG Conversion	Complete - 2012	North Central
Apopka	Duncan Trail	Back lot conversion	Complete - 2012	North Central
Buena Vista	Convention Center I4 Crossing	OH to UG Conversion	Estimated complete - March 2013 (Dealyed due to permitting complications.)	South Central
Buena Vista	I4 Crossing	OH to UG Conversion	Estimated complete - March 2013 (Dealyed due to permitting complications.)	South Central
Apopka	Wekiva Cove Rd	Back lot conversion	Complete - 2012	North Central
Jamestown	Econ backlot conversion	Back lot conversion	Complete - 2012	North Central

# **ATTACHEMENT J**

**I. Introduction:**

Rule 25-6.0342, Florida Administrative Code, requires investor-owned electric utilities in Florida to file a Storm Hardening Plan with the Florida Public Service Commission (“FPSC”) on or before May 7, 2007 and every three years thereafter as a matter of course. Rule 25-6.0342 specifies what must be included in utility storm hardening plans, and Progress Energy Florida, Inc. (“PEF”) has tracked those rule provisions in its Storm Hardening Plan below:

**25-6.0342(3):** *Each utility storm hardening plan shall contain a detailed description of the construction standards, policies, and procedures employed to enhance the reliability of overhead and underground electrical transmission and distribution facilities.*

PEF’s construction standards, policies, practices, and procedures related to storm hardening issues are listed below and are attached hereto as **Attachment A:**

Distribution OH Construction Manual

- i. Cover page
  - 1. *Addresses NESC adherence standards.*
- ii. General Overhead section
  - 1. *Discusses company policy on extreme wind.*
  - 2. *Details Florida’s extreme wind contour lines.*
  - 3. *Discusses the use of the Pole Foreman program.*
- iii. Guys and Anchors Section
  - 1. *Discusses PEF’s standard pole strengths, sizes, and limitations.*
- iv. Primary Construction section
  - 1. *Discusses corporate practices for primary line construction.*
- v. Coastal and Contaminated area section
  - 1. *Discusses corporate practices for primary line construction in coastal areas.*

Distribution UG Construction Manual

- vi. Cover page
  - 1. *Addresses NESC adherence standards.*
- vii. Underground General Section
  - 1. *Discusses location of UG facilities in accessible locations.*
- viii. OH-UG Transition section
  - 1. *Discusses corporate practices for primary framing on dip poles.*
- ix. Trenching and Conduit section
  - 1. *Discusses corporate practices for trenching and use of conduit on primary UG circuits.*
- x. Pads & Pullboxes Section
  - 1. *Discusses corporate practices for the placement and installation of transformer & switchgear pads and boxes.*
- xi. Enclosures & Pedestals Section
  - 1. *Discusses corporate practices for the placement and installation of pedestals and secondary termination cabinets.*
- xii. Cable Accessories Section
  - 1. *Discusses corporate procedures for the installation of UG terminations in non-storm surge areas.*
- xiii. Flooding and Storm Surge Requirements
  - 1. *Discusses corporate procedures for the installation of UG equipment in areas targeted for storm surge hardening.*

Distribution Engineering Manual

- xiv. Overhead Design guide section
  - 1. *Addresses line location in accessible location.*
  - 2. *Addresses NESC compliance.*
  - 3. *Discusses Pole Foreman program.*
- xv. Underground Design guide section
  - 1. *Addresses line location in accessible location.*
  - 2. *Addresses NESC compliance.*

Transmission - Extreme Wind Loading Design Criteria Guideline for Overhead Transmission Line Structures

## xvi. Standards Position Statement

1. *Addresses NESC compliance.*
2. *Addresses American Society of Civil Engineer's Manual 74 (ACSE 74).*
3. *Discusses transmission line importance for reliability.*
4. *Details Florida's extreme wind contour lines.*

Transmission - Line Engineering Design Philosophy

## xvii. Overhead Line Design philosophy

1. *Addresses NESC compliance.*
2. *Addresses insulator loading criteria.*
3. *Addresses guy / anchor capacity ratings.*
4. *Addresses design load cases.*
5. *Addresses extreme wind guidelines.*
6. *Addresses structural guidelines.*

Joint Use – Pole Attachment Guidelines and Clearances

## xviii. Pole Attachment Guidelines

1. *Addresses Pole Attachment and Overlash Procedures.*
2. *Addresses Joint Use Construction.*
3. *Addresses Guys and Anchors.*

## xix. Joint Use Clearances

1. *Addresses Line Clearances.*
2. *Addresses Joint Use Clearances.*

In addition to the standards, practices, policies, and procedures identified above, PEF's Wood Pole Inspection Plan, Vegetation Management Plan, and Ongoing Storm Preparedness Plan all contain standards, practices, policies, and procedures that address system reliability and issues related to extreme weather events. These plans are included herewith as **Attachment B**.

**25-6.0342(3)(a):**      *Each filing shall, at a minimum, address the extent to which the utility's storm hardening plan complies, at a minimum, with the National Electric Safety Code that is applicable pursuant to subsection 25-6.0345(2), F.A.C.*

All standards, practices, policies, and procedures in the manuals and plans listed above are based on accepted industry practices designed to meet or exceed the requirements of the National Electric Safety Code (NESC). These standards, practices, policies, and procedures are followed on all new construction and all rebuilding and relocations of existing facilities.

**25-6.0342(3)(b):**      *Each filing shall, at a minimum, address the extent to which the utility's storm hardening plan adopts the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC for new construction, major planned work, and critical infrastructure.*

New Construction:

PEF's design standards can be summarized as: 1) quality construction in adherence with current NESC requirements 2) well defined and consistently executed maintenance plans, and 3) prudent end-of-life equipment replacement programs. When these elements are coupled with a sound and practiced emergency response plan, construction grades as defined by the NESC provide the best balance between cost and performance.

PEF has extensive experience with the performance of Grade C and Grade B construction standards as defined by the NESC. That experience, which includes several hurricane seasons and other severe weather events, indicates that properly constructed and maintained distribution lines meeting all provisions of the NESC perform satisfactorily and provide a prudent and responsible balance between cost and performance. In PEF's urban areas, such as Pinellas County and the greater Orlando area, span lengths between poles are shorter due to road crossings and density of service points. In fact, PEF estimates that over 74% of its distribution system meets or exceeds Grade B construction standards.



PEF has not adopted extreme wind standards for all new distribution construction because of the following reasons:

1. Section 250C of the 2007 version of the NESC does not call for the extreme wind design standard for distribution poles which are less than sixty feet in height. Based on the fact that PEF's distribution poles are less than sixty feet, the extreme wind standard outlined in figure 250-2(d) does not apply.
2. All credible research, which includes extensive studies by the NESC rules committee, demonstrates that applying extreme winds standards would not benefit distribution poles. See Exhibit 4 filed in Docket No. 060172-EU, August 31, 2006 Workshop.
3. Utility experience from around the country further indicates that electrical distribution structures less than sixty feet in height are damaged in extreme wind events by trees, tree limbs, and other flying debris. Thus, applying the extreme wind standard to distribution poles would result in large increases in cost and design complexity without a commensurate benefit.
4. PEF's experience was consistent with that of the other utilities around the nation who found that vegetation and flying debris were the main causes of distribution pole damage, a condition that the extreme wind standard will not address. In 2004, approximately 96% of PEF's pole failures were attributable to flying debris and/or super extreme wind events such as tornadoes and micro-bursts.

With respect to new construction for transmission poles, PEF's transmission department is building all new construction with either steel or concrete pole material. Virtually all new transmission structures exceed a height of sixty feet above ground and therefore will be constructed using the NESC Extreme Wind Loading criteria.

Major planned work:

For the reasons discussed in the new construction section above, PEF has not adopted the extreme wind standard for major planned distribution work, including expansions, rebuilds, or relocations of existing facilities. Consistent with NESC Rule 250C, PEF will use the extreme wind standard for all major planned transmission work, including expansions, rebuilds, and relocations of existing facilities.

Critical infrastructure:

PEF, for the reasons discussed in the new construction section above, has not adopted the extreme wind standard for any of its distribution level critical infrastructure. Placing distribution poles constructed to extreme wind standards around facilities such as hospitals and police stations in PEF's service territory would unnecessarily increase costs and restoration time if those poles are knocked down by falling trees or flying debris such as roofs or signs. PEF's current level of construction, around critical facilities and around all other facilities, has performed well during weather events and any pole failures due solely to wind impact were caused by "super extreme" wind events such as tornados and "micro bursts," conditions that would have caused and did cause extreme wind construction to fail as well.

With respect to transmission, virtually all new transmission structures exceed a height of sixty feet above ground and therefore are constructed using the NESC extreme wind loading criteria. Accordingly, PEF will use the extreme wind standard for all major planned transmission work, including expansions, rebuilds, and relocations of existing facilities, irrespective of whether they can be classified as "critical" or "major."

While no current data or research supports the application of the extreme wind standard to distribution pole construction, PEF is analyzing the extreme wind standard by using its prioritization model for implementation purposes in selected locations throughout PEF's service territory. Since the submittal of the 2007 Storm Hardening plan, PEF constructed several pilot projects using the extreme winds standards. To date, there has not been a significant weather event that allowed PEF to assess the performance of these projects. In conjunction with wind measuring devices, PEF will study the performance of the extreme wind standard at these various sites when a weather event allows for such analysis. From this process, PEF expects to continue to learn and adjust its extreme weather strategy based on information that it will collect and gather from other utilities in Florida and throughout the nation as new standards and applications are applied and tested.

**25-6.0342(3)(c):** *Each filing shall, at a minimum, address the extent to which the utility's storm hardening plan is designed to mitigate damage to underground and supporting overhead transmission and distribution facilities due to flooding and storm surges.*

Based on PEF's experience in the 2004 and 2005 hurricane seasons, along with the experiences of other utilities in Florida reported to the FPSC after those seasons, PEF has concluded that underground applications may not be best suited for all areas. PEF has identified areas in its service territory where current underground equipment should be replaced with overhead due to the fact that those areas are subject to frequent and prolonged flooding resulting in damage from water intrusion on underground equipment. Thus, one of PEF's most effective tools in its hardening arsenal is to identify areas where underground equipment should and should not be used.

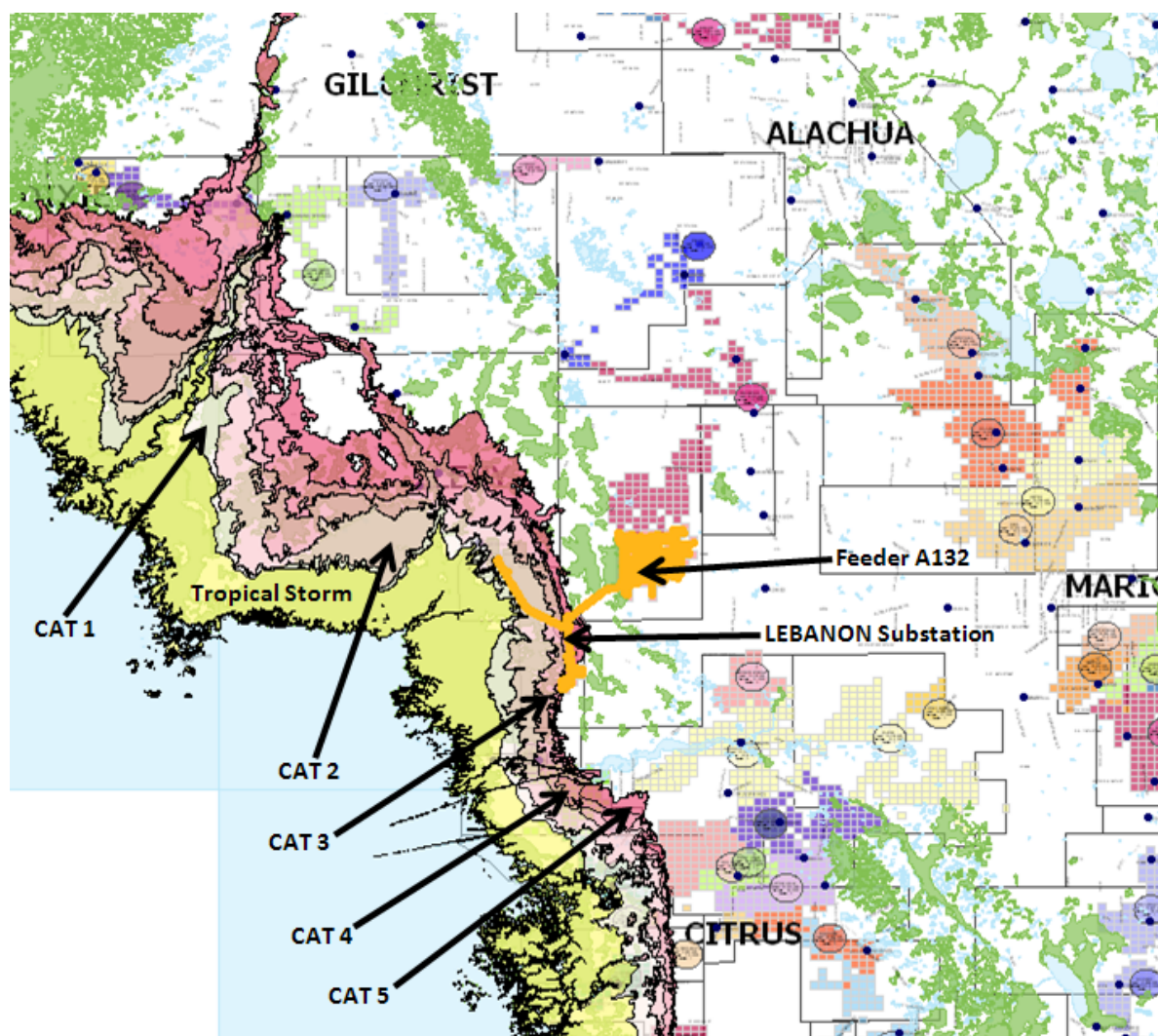
In areas where underground equipment may be exposed to minor storm surge and/or shorter term water intrusion, PEF has used its prioritization model (discussed in detail below) to identify areas where certain mitigation projects will be put into place to test whether flood mitigation techniques and devices can be used to protect equipment such as switchgears, padmounted transformers and pedestals. In these selected project sites, PEF will test:

- Stainless steel equipment;
- Submersible connectors;
- Raised mounting boxes;
- Cold shrink sealing tubes; and
- Submersible secondary blocks.

Throughout the year after a significant weather event, PEF will monitor these installations to collect and analyze data to determine how this equipment performs relative to PEF's current design with respect to outage prevention, reduced maintenance, and reduced restoration times. From this process, PEF will continue to learn and will adapt its flood and storm surge strategies based on information that it will collect and based on the information gathered by other utilities in Florida and throughout the nation as new standards and applications are applied and tested.

St. George Island in Franklin County was one of the areas where PEF used its submersible underground strategy to retrofit its existing facilities using the submersible standards listed above. St George Island is a good example of an area that would be susceptible to surges during a severe storm. The project was completed in 2007.

PEF also utilizes Geo Media software to determine the optimum location for submersible underground facilities. The flood zones were provided by the state and overlaid onto PEF's land base computer system along with other facilities. This method allows PEF to visually determine which geographic areas would most benefit from submersible facilities. See example below.



In addition to the actions discussed above, during major storm events, substations that are in the forecast strike zone will have sandbags placed in strategic areas to attempt to eliminate water intrusion into control houses. In the event of water intrusion causing extensive damage requiring prolonged repair, PEF will employ mobile substations to affected areas, where possible, in order to restore power.

**25-6.0342(3)(d):** *Each filing shall, at a minimum, address the extent to which the utility's storm hardening plan provides for the placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance pursuant to Rule 25-6.0341, F.A.C.*

PEF will continue to use front lot construction for all new distribution facilities and all replacement distribution facilities unless a specific operational, safety, or other site-specific reason exists for not using such construction at a given location. See Distribution Engineering Manual, Section xv(1).

**25-6.0342(4):** *Each utility storm hardening plan shall explain the systematic approach the utility will follow to achieve the desired objectives of enhancing reliability and reducing restoration costs and outage times associated with extreme weather events.*

As part of its systematic approach to storm hardening for the 2007-2009 Storm Hardening plan, PEF engaged industry expert Davies Consulting ("DCI") in developing a comprehensive prioritization model that has helped PEF identify potential hardening projects, procedures, and strategies. DCI has worked with a number of utilities nationally to evaluate their power delivery system major storm preparedness. They have also evaluated options for infrastructure hardening to improve performance and reliability not only day-to-day, but also during major storms. Collaborating with DCI, PEF created an evaluation framework for various hardening options and prioritization of potential alternatives. Since 2007, the model has been improved and enhanced to better reflect the changes in PEF's overall storm hardening strategy. The structure of the model was adjusted to use more consistent scoring criteria to evaluate the pilot projects. New software technology such as Geomedia was incorporated into the model. As more data becomes available, PEF will continue to adjust its prioritization model as appropriate.

Using the same evaluation framework for the 2010-2012 Storm Hardening plan, PEF prioritized its proposed projects based on various components that will be discussed in more details below.

Under the foregoing components of the evaluation framework, the prioritization model is set up to analyze the following hardening alternatives for PEF:

- OH-to-UG Conversions
  - Taking existing overhead (OH) electric lines and facilities and placing them underground (UG) via the use of specialized UG equipment and materials. The primary purpose of this hardening activity is to attempt to eliminate tree and debris related outages in the area of exposure. When applied to crossings on major highways, this hardening activity can also mitigate potential interference with first responders and other emergency response personnel caused by fallen lines.
- Small Wire Upgrade
  - The conversion of an existing overhead line currently with either #4 AL or #6 Cu conductor to a thicker gauge conductor of 1/0 or greater. The primary purpose of this hardening activity is to attempt to utilize stronger conductor that may be better able to resist breakage from falling tree branches and debris.
- Backlot to Frontlot Conversion
  - Taking an existing overhead line located in the rear of a customer's property and relocating it to the front of the customers property. This involves the removal of the existing line in the rear of the property and construction of a new line in the front of the property along with re-routing service drops to individual customer meters. The primary purpose of this hardening activity is to minimize the number of tree exposures to the line to prevent outages and to expedite the restoration process by allowing faster access in the event an outage occurs.



- Submersible UG
  - Taking an existing UG line and equipment and hardening it to withstand a storm surge via the use of the current PEF storm surge standards. This involves the use of specialized stainless steel equipment and submersible connections. The primary purpose of this hardening activity is to attempt to minimize the damage caused by a storm surge to the equipment and thus expedite the restoration after the storm surge has receded.
- Alternative NESC Construction Standards
  - Building OH line and equipment segments to the extreme wind standard as shown in the NESC extreme wind contour lines of figure 250-2(d). This will be done via the use of the current extreme wind standards which call for the use of the industry accepted Pole Foreman program to calculate the necessary changes. Typical changes include shorter span lengths and higher class (stronger) poles. The primary purpose of this hardening activity is to attempt to reduce the damage caused by elevated winds during a major storm. Locations have been chosen to provide contrasting performance data between open coastal and inland heavily treed environments.
- Feeder ties
  - Tying radial feeders together to provide switching capabilities to reduce outage duration. This hardening alternative will mitigate long outages that would have otherwise occurred as a result of the inability to transfer load/customers to an alternate source.

Feeder ties as a hardening alternative is a newly added category to PEF's Storm Hardening approach. Although the concept of storm hardening is generally thought of as outage prevention, it is inevitable that outages will still occur during a severe storm as a result of vegetation and flying debris. Feeder ties will help mitigate the duration of such outages. Tying multiple feeders together will give PEF the ability to minimize duration by serving customers

from an alternate source while repairs are being made on the affected segment. Based on PEF's experience in the 2004 -2005 hurricane seasons as well as the recent tropical storms, feeder ties are crucial for a distribution system as it provides the opportunity to maximize the number of customers restored in the shortest timeframe possible. Regardless of what caused the outage during a severe storm, a radial feeder will be out for as long as it takes to make the necessary repairs. On the other hand, a feeder tie would allow PEF to restore as many customers as possible, thereby minimizing the number of customers that are without power for the length of the repair.

The development of the prioritization model begins with compiling a list of desired projects submitted by engineers and field personnel most familiar with the specific region. Each project is then evaluated based on the following criteria:

- Major Storm Outage Reduction Impact
  - Determines the potential benefits that the project provides during a major storm based on reduced damages or the ability to restore power more rapidly.
- Community Storm Impact
  - Evaluates the potential benefits that the proposed project will have on a community's ability to cope with damage.
- Third Party Impact
  - Captures complexities of proposed projects in terms of coordination with third parties such as telecommunication, Cable TV, permitting, easements, costs, etc.
- Overall Reliability
  - Captures the overall potential reliability benefits that the project provides on a day to day basis in terms of reduced customer interruptions and outage duration.
- Financial Cost
  - Provides the financial value of the proposed project based on cost per customer and cost per foot of newly installed wire/cable.

The prioritization model is set up to address the following hardening project questions:

- How many customers are served from the upstream protective device?
- What will be the impact of this project on the restoration time during a major storm?
- At what level of hurricane will the area served by this feeder flood due to storm surges?
- What is the tree density in the area served by this feeder or section?
- What level of tree damage will this project mitigate during a major storm?
- How many critical infrastructure components (lift stations, shelters, hospitals, police, etc...) does this project address?
- How valuable will the project be perceived by the community?
- What are the major obstacles/risks for completing the project? i.e. easements, permits, etc.
- What type of investment is required by joint users (telecoms and cable) to complete this project?
- What is the 3-year average number of CEMI4 customers on this feeder?
- What is the 3-year average number of CMI on this feeder?
- What is the change in the annual CAIDI that this project will result in (on the feeder or section)?
- Will this project reduce the number of momentary customer interruptions on this section?
- What is the 3-year average number of CELID CI on this feeder?
- What is the construction Cost per customer

Each answer to the questions listed above is assigned a numerical value and subsequently weighted to produce an overall rating for each specific hardening project. The prioritization model is based on a structured methodology for evaluating the benefits associated with various hardening options. The model allows for the ranking of the overall list of projects. It enables PEF to strategically determine the order in which these projects are constructed, based on their order of ranking.

PEF is using the prioritization model to ensure a systematic and analytical approach to deploying storm hardening options within its service territory. For proven hardening options that

PEF is already using as part of its construction standards and policies, the prioritization model will help PEF best locate and prioritize areas within its system where those options should be used. For unproven or experimental hardening options, such as the extreme wind standard for distribution pole construction, PEF is using its prioritization model to identify areas within its service territory where analytical data collection projects can be used to evaluate the performance and results of such hardening options. Examples of specific projects that took place between 2007 and 2009 are discussed later.

**25-6.0342(4)(a):** *A description of the facilities affected, including technical design specifications, construction standards, and construction methodologies employed.*

All of PEF's facilities are affected to some degree by the standards, policies, procedures, practices, and applications discussed throughout this document. Specific facilities are also addressed herein in detail (i.e. upgrading all transmission poles to concrete and steel, using front lot construction for all new distribution lines where possible). Technical design specifications, construction standards, and construction methodologies are specifically discussed at pages 1 through 3 of this plan and are included in **Attachments A and B**.

**25-6.0342(4)(b):** *The communities and areas within the utility's service area where the electric infrastructure improvements are to be made.*

As discussed above, all of PEF's facilities are affected to some degree by the standards, policies, procedures, practices, and applications discussed throughout this document. As a result, all areas of PEF's service territory are impacted by PEF's storm hardening efforts. Based on PEF's recent storm experience and/or through the prioritization model, the following projects were completed between 2007 and 2009:

**Distribution:**

<b>Op Center</b>	<b>Project Name</b>	<b>Sub Category</b>
Monticello	St Geroge Is - Plantation	Submersible UG
Apopka	US 441 west of Hwy 19	OH to UG Conversion
Inverness	Homosassa - Riverhaven	Submersible UG
Inverness	US 98 - Brooksville	Small Wire Upgrade
St-Petersburg	Coquina Key	Small Wire Upgrade
Monticello	A192 - Luraville	Small Wire Upgrade
Clearwater	Indigo	Small Wire Upgrade
Ocala	US 301 - Citra	Small Wire Upgrade
SE Orlando	Sprint Earth Station & Cocoa Water Wells	Small Wire Upgrade
Lake Wales	Highland Park	Small Wire Upgrade
Lake Wales	Hibiscus Feeder Tie	Small Wire Upgrade
Inverness	R448 - Dunnellon	Back lot to Front lot conversion
SE Orlando	Holden Ave E) Orange Blossom Trail	Small Wire Upgrade
Buena Vista	Calle De Sol	Back lot to Front lot conversion
Jamestown	SR-408 @ Woodbury Rd	OH to UG Conversion
SE Orlando	Florida Turnpike @ Sandlake Rd (746')	OH to UG Conversion
Buena Vista	OH Crossing of Turnpike (K68 @K5255 )	OH to UG Conversion
SE Orlando	OH Crossing of Turnpike 2 (K1780 @ K6434991 and K1775 @ K5021)	OH to UG Conversion
SE Orlando	Florida Turnpike @ Sandlake Rd (485')	OH to UG Conversion
SE Orlando	OH Crossing of Turnpike (K1025 @ K1025 & K1028 @ K128)	OH to UG Conversion
SE Orlando	Florida Turnpike @ Orange Blossom Trail	OH to UG Conversion
Ocala	Ranch Hand Dr	Small Wire Upgrade
Monticello	Carrabelle Beach	Extreme Wind
Inverness	Willinston Reconductor	Small Wire Upgrade
Lake Wales	Cabbage Island	Extreme Wind
Seven Springs	Banana St	Small Wire Upgrade
Monticello	Monticello N69 Reconductor	Small Wire Upgrade
Jamestown	Feeder Tie loop Lockwood Blvd	Feeder Tie
Inverness	Florida Highlands	Extreme Wind

SE Orlando	Holden Ave - Orange Blossom Trail	Small Wire Upgrade
Lake Wales	Hibiscus Feeder Tie	Small Wire Upgrade
Inverness	Homosassa-Riverhaven	Submersible UG
Longwood	Reconductor, O'Brien/Spring Lake Rd	Feeder Tie
Lake Wales	Walnut St Feeder Tie	Feeder Tie
Lake Wales	Lake Marion Feeder Tie	Feeder Tie
Clermont	Turnpike Crossing @ Blackstill Lake Rd	OH to UG Conversion
Jamestown	Bithlo	Feeder Tie
Jamestown	Black Hammock	Feeder Tie
SE Orlando	Rio Pinar / Old Cheney	Feeder Tie
Deland	Veterans Pkwy	Feeder Tie
Jamestown	Econ Trail	Feeder Tie
Jamestown	Bedford Rd	Feeder Tie
St Petersburg	Jungle Prada	Small Wire Upgrade
Monticello	Crawfordville Reconductor	Small Wire Upgrade
Monticello	Cape San Blas	Extreme Wind Upgrade
Highlands	Sebring Airport	Feeder Tie
Walsingham	Feeder X132	Extreme Wind Upgrade
Walsingham	Feeder X142	Extreme Wind Upgrade

The list below is a sampling of the proposed 2010 – 2012 Storm Hardening projects

<b>Op Center</b>	<b>Project Name</b>	<b>Sub Category</b>
South East Orlando	Millinockett	Feeder Tie
Lake Wales	Lake Marion	Feeder Tie
South East Orlando	Simmons Road	Extreme Wind Upgrade
Apopka	Marden Road	Small Wire Upgrade
Jamestown	Willow Run	OH to UG Conversion
Zephyrhills	Eiland Blvd.	Feeder Tie
Buena Vista	Celebration Blvd.	Feeder Tie
Seven Springs	Sun coast Parkway	Feeder Tie



Monticello	N67 Feeder Relocation From Abrams to SR 59 On US 90	Back lot to Front lot conversion
Monticello	N67 Old Lloyd Road Single Phase to Three Phase	Small Wire Upgrade
Monticello	SR 65 Line Relocation	Back lot to Front lot conversion
St Petersburg	22nd St. S Reconductor	Feeder Tie
St Petersburg	Connecticut Ave. Reconductor (NE area improvement)	Feeder Tie
St Petersburg	22nd Ave. S Reconductor	Feeder Tie
St Petersburg	Shore Acres Bridge Reconductor (NE area improvement)	Feeder Tie
St Petersburg	21st/22nd Alley Reconductor (NE area improvement)	Feeder Tie
Ocala	Feeder Tie Addition between A38 and A204	Feeder Tie
St Petersburg	Cordova Blvd. NE to Snell Isle NE Reconductor (NE area improvement)	Feeder Tie
Inverness	Feeder Tie Addition between A68 and A49	Feeder Tie
St Petersburg	62nd Street Reconductor (NE area improvement)	Feeder Tie
Apopka	Reconductor Wekiva Pines Blvd., Sorrento	Back lot to Front lot conversion
St Petersburg	34th Ave NE/Monterey Blvd/Almedo/Rivera Dr Reconductor (NE area improvement)	Feeder Tie
Ocala	Martin A38 - CR 316 E of CR 200A	Small Wire Upgrade
Monticello	Madison N2, N3 Feeder Tie	Feeder Tie
St Petersburg	15th Ave S Reconductor	Feeder Tie
St Petersburg	1st St. N Reconductor (NE area improvement)	Feeder Tie
St Petersburg	Denver St. NE/Venetian Blvd	Feeder Tie

	Reconductor (NE area improvement)	
St Petersburg	9th St. South Reconductor	Feeder Tie
Monticello	Alligator Point Extreme Wind	Extreme Wind Upgrades
Inverness	Lebanon Sub feeder Reconductor	Small Wire Upgrade
Lake Wales	Feeder tie K1521 and K1526	Feeder Tie
Deland	Monastery I4 Oh-Ug conversion	OH to UG Conversion
Monticello	St George Island - East Side UG Submersible	Submersible UG
South East Orlando	Reconductor US-192 Holopaw	Small Wire Upgrade
Inverness	Brooksville - SR 50 E of Cortez	Small Wire Upgrade
Inverness	Holder A48 - Arrowhead Subdivision	Small Wire Upgrade
Monticello	Madison N1 - Feeder to Lee	Small Wire Upgrade
St Petersburg	22nd St. S Reconductor	Feeder Tie
Monticello	St George Island Extreme Wind	Extreme Wind Upgrades
Winter Garden	Feeder tie K206 to K3285	Feeder Tie
Highlands	Dinner Lake K1690 - back lot conversion Andes Dr	Back lot to Front lot conversion
Deland	Barberville-Recloser D4516- SR 40, Church St. Pierson	Small Wire Upgrade
South East Orlando	Dallas Blvd	Extreme Wind Upgrades
Jamestown	Feeder Tie, Loop 2 radials(1.0 miles & 0.3 miles)-Chapman Rd	Feeder Tie
Apopka	Feeder Tie, Loop 0.8 mile radial-Vulcan Road	Feeder Tie
South East Orlando	Reconductor Hickory Tree Rd, Holopaw	Small Wire Upgrade
Lake Wales	K1195 Seminole Rd Reconductor	Small Wire Upgrade
South East Orlando	Reconductor Deer Run, Holopaw	Small Wire Upgrade
Jamestown	Feeder Tie, Loop 2 radials (1.2 miles & 0.3 miles)- Rouse Rd	Feeder Tie
Buena Vista	Feeder tie K792 to K1110	Feeder Tie
Lake Wales	Babson Park - KABI0	Small Wire Upgrade
South East Orlando	Canoe creek crossing	OH to UG Conversion

South East Orlando	South Canoe Creek crossing	OH to UG Conversion
South East Orlando	Friairs crossing	OH to UG Conversion
South East Orlando	Southeast Canoe Creek crossing	OH to UG Conversion
Lake Wales	Mountain Lake subdivision Reconductor	Small Wire Upgrade
Clermont	CR455 crossing	OH to UG Conversion
Clermont	Buck Hill crossing	OH to UG Conversion
Clermont	Old SR 50 crossing	OH to UG Conversion
Longwood	I4-Crossing at Oglesby Av.	OH to UG Conversion
Longwood	I4-Crossing at Dartmouth Av.	OH to UG Conversion

With regard to system hardening projects in general, PEF's approach is to consider the unique circumstances of each potential location considered for hardening by taking into account variables such as:

- operating history and environment;
- community impact and customer input;
- exposure to storm surge and flooding;
- equipment condition;
- historical and forecast storm experience; and
- potential impacts on third parties;

This surgical approach leads to the best solution for each discrete segment of the delivery system.

For example, Pasadena Feeder X220 was selected as a storm hardening candidate for 2009. X220 is a mainly an overhead feeder along Pasadena Avenue running from the substation south to the Palms of Pasadena Hospital. Engineering was initiated, and pole foreman was used for pole size selection and pole spacing. It was calculated that a 100 foot spacing and pole classes H1, 0, 1, and 2 would be required to meet the extreme wind loading criteria. Class H poles are normally transmission poles, and have a large ground or butt circumference. The general distribution guidelines for pole spacing are between 175 to 220 feet.

The Town of Pasadena was contacted by our Public Affairs Department, given the project scope information, and was made aware of the positive impacts of the project. The city was

adamantly opposed to the storm hardening of X220 due to the larger class poles, closer pole spacing, and the perceived overall aesthetic impact. Due to the overwhelming negative reaction of the town, this project was cancelled. On the other hand, the San Blass Extreme wind project in Monticello was well received by the community. The project was discussed with the County Manager and the County Commissioner for the District. This project was also discussed with a local civic club where many of the members were residents in the project area. This project was completed in 2009. This is a real life example of why “one size does not fit all” when it comes to storm hardening.

In areas like Gulf Boulevard and other coastal communities in Pinellas County, local governments have worked with PEF to identify areas where overhead facilities have been or will be placed underground, and this option will help to mitigate storm outages caused by vegetation and flying debris. PEF is also working in these areas to evaluate upgrading portions of those facilities to the surge-resistant design discussed above. Again, these hardening options may work well in these communities, but may not be ideal or desirable in others.

**Transmission:**

The Transmission Department is employing a system-based approach to changing out wood poles to either concrete or steel poles based upon the inspection cycle and condition of pole. These projects are identified during the transmission pole inspection cycles. Specific new, rebuilt or relocated projects that are planned over the next three years are listed below:

<b><u>Coastal Transmission Area</u></b>	<b><u>Project Type</u></b>	<b><u>County</u></b>	<b><u>Third Party Impact</u></b>
Oldsmar to Curlew - 115 kV Line Rebuild	Rebuild	Pinellas	Likely
Hudson to Heritage Pines Tap - 115 kV Line Rebuild	Rebuild	Pasco	Possible
Brooksville West to Brooksville - 115 kV Line Rebuild	Rebuild	Hernando	Unlikely
HG-203 255585-1-52-01 Hillsborough SR39 (Alexander St. N.)	Governmental	Polk	Unlikely

<b><u>Coastal Transmission Area</u></b>	<b><u>Project Type</u></b>	<b><u>County</u></b>	<b><u>Third Party Impact</u></b>
Northeast - 40th Street (NF) 230kV Line - Relocate Poles	Governmental	Pinellas	Possible
LSP 71-74 PID 921321 Pinellas Trail 97 <sup>th</sup> Way	Governmental	Pinellas	Likely
ECTW-236 to ECTW-254 403725-1-52-01 Pinellas SR-595	Governmental	Pinellas	Likely
LSP 230kV relocation Pinellas County #865 Park St/Starkey Rd	Governmental	Pinellas	Likely
BWX-115kV-Sunshine Grove Road-Hernando County	Governmental	Hernando	Likely
LSP -12 922252 Pinellas County Starkey Rd	Governmental	Pinellas	Likely
ZNR 44, 57, 58 CIP 6360 Pasco Co Zephyrhills Bypass West Gap	Governmental	Pasco	Possible
TZ-69kV-Relocation-Keystone Road Widening- Pinellas County	Governmental	Pinellas	Likely
NP-4 thru NP-7 FIN: 256931-2-52-01 Gandy to 4th St	Governmental	Pinellas	Possible

<b><u>Southern Transmission Area</u></b>	<b><u>Project Type</u></b>	<b><u>County</u></b>	<b><u>Third Party Impact</u></b>
Gifford - New 230/69 kV Substation and Boggy Marsh to Gifford - 69 kV Line Rebuild	Rebuild	Orange	Unlikely
Dundee to Intercession City 230 kV - Rebuild & Add 2nd Circuit	Rebuild	Polk	Highly unlikely
Boggy Marsh to Gifford - 69 kV Line Rebuild	Rebuild	Lake	Likely
Intercession City to Barnum City - 69 kV Line Rebuild	Rebuild	Osceola	Likely
Fern Park to Altamonte - 69 kV Line Rebuild 2.39 miles	Rebuild	Seminole	Likely
Turner Plant to Barwick Tap - 115 kV Line Rebuild 4.14 miles	Rebuild	Volusia	Possible

<b><u>Southern Transmission Area</u></b>	<b><u>Project Type</u></b>	<b><u>County</u></b>	<b><u>Third Party Impact</u></b>
Rio Pinar to Vista Tap - 69 kV Line Rebuild	Rebuild	Orange	Possible
Spring Lake to Keller Road - 69 kV Line Rebuild	Rebuild	Seminole	Likely
Deleon Springs, Deland West to Spring Garden Tap, 9.65 miles - T1	Rebuild	Volusia	Possible
Holopaw - Poinsett; 230kV 18.17 mile rebuild	Rebuild	Osceola	Highly unlikely
Intercession City - Cane Island; Upgrade 230kV line to 3000A	Rebuild	Osceola	No
Turner - Orange City; 115kV Rebuild 11 miles	Rebuild	Volusia	Possible
WCA 69kV Relocation for Chapman Rd From SR 426 to SR 434	Governmental	Seminole	Likely
WCE 283 - 285 406146-1-52-01 Orange County SR50 & SR91 Relocation	Governmental	Orange	Likely
SCP Relocation-Bee Line Expansion of John Young Bridge	Governmental	Orange	Possible
EP-69kV-SR 414 (Maitland Blvd. Extension – OOCEA	Governmental	Orange	Possible
WCE-291A & B 406146-1-52-01 Phase II Remington & SR50	Governmental	Orange	Likely
WEWC / WF 417545-1-52-01, Seminole, SR 417 Bridge Modification @ SR426	Governmental	Seminole	Possible
WCE-69kV Relocate FDOT SR 50 Avalon Rd to SR 429	Governmental	Orange	Likely
WR and RW 69kV Relocation for Econ Trail	Governmental	Orange	Likely
CLA 69kV relocation SR 436 at Red Bug Lake RD 419369-1-52-01	Governmental	Orange	Likely
WO 69kV Relocation for I-4 Widening	Governmental	Orange	Possible
SLE 69kV relocation for Kennedy Blvd widening (Orange County)	Governmental	Orange	Likely
SLM 69kV relocations for Kennedy Blvd widening (Orange County)	Governmental	Orange	Likely
WO 69kV relocation for Kennedy Blvd widening	Governmental	Orange	Likely



<b><u>Southern Transmission Area</u></b>	<b><u>Project Type</u></b>	<b><u>County</u></b>	<b><u>Third Party Impact</u></b>
(Orange County)			
FTO-141 415030-1-38-01 Seminole County SR 426 / CR 419 widening	Governmental	Seminole	Likely
ASW-17,18,19 242592-2-52-01 Seminole County SR400 / I-4	Governmental	Seminole	Unlikely
CET-54 Lake County Hartwood Marsh Rd Phase II	Governmental	Orange	Likely
SLE-21 to SLE-27 240231-3-52-01 Seminole SR434 Sound Wall	Governmental	Orange	Likely
PS, SB, and SES County Rd 437 & Wolf Branch Rd Lake County # 08052	Governmental	Lake	Possible
ICLB-92 To 103 & LF-3, LF-6 To 32 Osceola Old Lake Wilson	Governmental	Osceola	Likely
NLA-23 to NLA-29 69kV 412994-3-52-01 CSXT Comm Rail Longwood	Governmental	Seminole	Possible
TMS 69kV Relocation Taft-Vineland Rd from SOBT to Orange Ave	Governmental	Orange	Likely
BMF 69kV SR 530 Orange County FDOT FIN# 239304-1	Governmental	Orange	Possible
DLM-11 Relocation for County Project #:64051 Lake Mabel Loop Widening	Governmental	Polk	Possible
CLC 137-139,149, 153, 157,159 238429-7-52-01 Lake State Rd 50	Governmental	Lake	Likely
CEB 238423-1-52-01 Lake State Rd 25, Lake Louisa to State 50	Governmental	Lake	Likely
ASL-58 FPID#242592-3-32-01 Seminole State Rd 400 (I-4)	Governmental	Seminole	Unlikely

<b><u>Northern Transmission Area</u></b>	<b><u>Project Type</u></b>	<b><u>County</u></b>	<b><u>Third Party Impact</u></b>
HB-98 69 kV Croft Avenue Citrus County	Governmental	Citrus	Possible
St. George Island Tap - Rebuild Radial 69kV Line	Rebuild	Franklin	Highly unlikely
Holder - Second 230/69 kV Transformer & 69 kV	Rebuild	Citrus	Unlikely

<b><u>Northern Transmission Area</u></b>	<b><u>Project Type</u></b>	<b><u>County</u></b>	<b><u>Third Party Impact</u></b>
Line; Rebuild Dunnellon Tap to Holder			
Williston to Cara Tap - 69 kV Line Rebuild, 8.84 miles	Rebuild	Levy	Unlikely
Bell Tap to Bell (CFEC) - Rebuild 69kV Line	Rebuild	Gilchrist	Unlikely
High Springs to Hull Road 69 kV Line Rebuilds (Part 2) - High Springs to Alachua Co-op Tap, 5.09 miles T2	Rebuild	Alachua	Possible
Fort White to Luraville - 69kV Line Rebuild (Ft. White to O'Brien) 10.12 miles, FP-1, T1	Rebuild	Columbia	Unlikely
River Junction to Woodruff - 115 kV Line Rebuild, 1.84 miles, T1	Rebuild	Gadsden	Possible
Woodruff to Interconnect - 115 kV Line Rebuild, 1.41 miles, T4	Rebuild	Gadsden	Unlikely
Port St. Joe to Apalachicola - 69 kV Line Rebuild (Double Circuit), 20 miles	Rebuild	Gulf	Possible
High Springs to Hull Road 69 kV Line Rebuilds (Part 1) - Hull Road to GE Alachua, 16.5 miles T1	Rebuild	Alachua	Possible
Perry to Luraville - 69kV Line Overload (Smith Tap to Luraville) 5.69 miles, FP-3, T2	Rebuild	Taylor	Unlikely
River Junction to Atwater - 115 kV Line Rebuild, 7.14 miles, T2	Rebuild	Gadsden	Unlikely
Rebuild IS line 2.62 miles from Chiefland #1 tap to 450-1	Rebuild	Levy	Unlikely
Martin West to Cara Tap - 69kV Line Rebuild (Reddick to Proctor Tap) 3.73 miles, T3	Rebuild	Marion	Unlikely
High Springs to Hull Road 69 kV Line Rebuilds (Part 3) - Alachua to GE Alachua, 4.37 miles T3	Rebuild	Alachua	Possible
Quincy to Havana - 115 kV Line Rebuild, 9.067 miles, T1	Rebuild	Gadsden	Unlikely
Apalachicola to Eastpoint - 69 kV Line Rebuild (Double Circuit Capability)	Rebuild	Franklin	Unlikely

<b><u>Northern Transmission Area</u></b>	<b><u>Project Type</u></b>	<b><u>County</u></b>	<b><u>Third Party Impact</u></b>
High Springs to Hull Road 69 kV Line Rebuilds (Part 4) - Alachua Co-op Tap to Alachua, 2.31 miles T4	Rebuild	Alachua	Possible
Havana to Bradfordville West - 115 kV Line Rebuild, 10.53 miles, T2	Rebuild	Gadsden	Unlikely
Rebuild Jasper-Burnham-West Lake Tap 115kV Rebuild; 14.69 miles (ADAGE Bio Mass)	Rebuild	Hamilton	Unlikely
PP-119, 120, & 121 SR429 - Vick Rd. Ext. (429-200B) 69kv	Governmental	Orange	Likely
LC # 238395-4-52-01 Lake SR500 Dr. MLK to Lake Ella Rd.	Governmental	Marion	Likely
LC # 238395-5-52-01 Lake SR500 Lake Ella to Avenda Central	Governmental	Marion	Likely
CSB 121-161 Citrus CR486 Service Rd to North Ottawa Ave. T2008-07	Governmental	Citrus	Likely
CLT & CC Citrus 405270-3-52-01 State Rd 589 Suncoast Parkway II – Section 1	Governmental	Citrus	Highly unlikely
CRCF,CCF,IT,CLT,CC Citrus 405270-5-52-01 Suncoast Parkway II-Section 3	Governmental	Sumter	Highly unlikely
CSB-93 405270-4-52-01 Citrus Suncoast Pkwy II N.Card-CR486	Governmental	Citrus	Possible
City of Leesburg Beautification CFLE-90 to CFLE-113-2	Governmental	Lake	Likely
CFLE-95-98 238394-2-52-01 Lake SR500 Perkins to Griffin	Governmental	Lake	Likely
OLR-69kV-CR. 470 widening Lake Co.	Governmental	Lake	Possible
WCE-310 Relocated State Rd 50 FIN 238429-4-52-01 Orange	Governmental	Orange	Likely
WA 69 kV Relocation- SR15/600 Interchange @ SR436- #404418-1	Governmental	Seminole	Likely

<b><u>Northern Transmission Area</u></b>	<b><u>Project Type</u></b>	<b><u>County</u></b>	<b><u>Third Party Impact</u></b>
BCF 69kV_CR-468 Four lane curb and Gutter expansion	Governmental	Sumter	Possible
JH-City of Tallahassee Jackson Bluff Hydro Spillway FERC2891	Governmental	Liberty	Unlikely
LE - Transfer LE to Double Circuit on CFS Structures	Governmental	Lake	Possible
DR-90 to DR-98 238720-1-52-01 Marion SR40-SR45/US41 to CR328	Governmental	Marion	Likely
OCF-31 to 42 238677-1-52-01 Marion SR35 (Baseline Rd)	Governmental	Marion	Possible
WHX 425588-1-52-01 Jefferson SR20 (US-27) @ Gamble Inter	Governmental	Jefferson	Possible
DR-36 to DR-94 238648-1 Marion SR45	Governmental	Marion	Likely
WO 33-9 relocation for FDOT # 239496-2 Forest City Rd.	Governmental	Orange	Likely
CFS-230kV-CR44A and Estes Road-Lake County Public Works	Governmental	Lake	Possible
LE-217 Project 08007 Lake CR44 Deceleration Lane & Shoulder Imp.	Governmental	Lake	Likely
IO-564 Marion County SE 31 <sup>st</sup> Street	Governmental	Marion	Likely
CS FPID #220495-2-52-01, Wakulla County, SR 369	Governmental	Wakulla	Possible
AND 69kV FPID# 411256-3-52-01, Marion County, SR 35	Governmental	Wakulla	Likely
AND-98-26 411257-3-52-01 Sumter SR35 from CR 232 to NE 110 <sup>th</sup>	Governmental	Sumter	Likely

**25-6.0342(4)(c):** *The extent to which the electric infrastructure improvements involve joint use facilities on which third-party attachments exist.*

In the description of specific hardening projects above, PEF has provided information as to whether the projects involve joint use facilities on which third-party attachments exist. Also, on September 3, 2008, and again on September 3, 2009, PEF met with all joint use attachers that have provided PEF contact information pursuant to Rule 25-6.0342(6). In those meetings, PEF provided those attachers with information on where specific hardening projects are taking place. PEF provided detailed written project descriptions and locations those third-party attachers on September 3, 2008, and again on September 3, 2009 and has subsequently interacted with any affected joint attacher in an effort to identify any cost or impact to those attachers.

**25-6.0342(4)(d)**: *An estimate of the costs and benefits to the utility of making the electric infrastructure improvements, including the effect on reducing storm restoration costs and customer outages.*

With respect to system-wide storm and extreme weather applications identified in **Attachment B**, PEF has provided any available cost/benefit information within the documents in **Attachment B**. Additionally, please see the following chart for money that PEF has spent during 2008 and 2009 on storm hardening and maintenance:

### **Progress Energy Florida Storm Hardening and Maintenance Costs**

<b>Description</b>	<b>2008</b>	<b>2009</b>
Vegetation Management (Distribution & Transmission)	\$18,530,738	\$27,515,055
Joint Use Pole Inspection Audit	\$484,000	\$527,744
Transmission Pole Inspections	\$2,370,222	\$2,171,157
Other Transmission Inspections and Maintenance	\$16,091,104	\$13,910,179
Transmission Hardening Projects	\$111,700,000	\$99,809,000
Distribution Pole Inspections	\$1,716,293	\$2,913,211
Distribution Hardening Projects	\$16,631,322	\$19,052,230
<b>Total</b>	<b>\$167,523,679</b>	<b>\$165,898,576</b>

**25-6.0342(4)(e):** *An estimate of the costs and benefits, obtained pursuant to Rule 25-6.0342(6), to third-party attachers affected by the electric infrastructure improvements, including the effect on reducing storm restoration costs and customer outages realized by the third-party attachers.*

With respect to system-wide storm and extreme weather applications identified in **Attachments A and B**, PEF believes that any entity jointly attached to PEF's equipment would enjoy any benefit that PEF would enjoy from that same application, and PEF has provided any available cost/benefit information within the documents in those attachments.

**25-6.0342(5):** *Each utility shall maintain written safety, reliability, pole loading capacity, and engineering standards and procedures for attachments by others.*

Please see **Attachment A** and **Attachment C**.

**25-6.0342(5):** *The attachment standards and procedures shall meet or exceed the NESC so as to assure that third-party facilities do not impair electric safety, adequacy, or pole reliability; do not exceed pole loading capacity; and are constructed, installed, maintained, and operated in accordance with generally accepted engineering practices for the utility's service territory.*

All third-party joint use attachments on Progress Energy Florida's distribution and transmission poles are engineered and designed to meet or exceed current NESC clearance and wind loading standards. New attachment requests are field inspected before and after attachments to assure company construction standards are being met. All entities proposing to attach joint use attachments to Progress Energy Florida's distribution and transmission poles are given a copy of the company-prepared "Joint Use Attachment Guidelines." Attached hereto as **Attachment C**. These guidelines are a comprehensive collection of information spelling out the company's joint use process, construction standards, timelines, financial responsibilities, and key company contacts responsible for the completing permit requests. All newly proposed joint use attachments are field checked and designed using generally accepted engineering practices to assure the new attachments do not overload the pole or impact safety or reliability of the electric



or other attachments. Additionally, annual and full-system audits are performed as detailed in PEF's annual March 1 comprehensive reliability report. For details on this activity, please see **Attachment B**.

**25-6.0342(6):**     *Each utility shall seek input from and attempt in good faith to accommodate concerns raised by other entities with existing agreements to share the use of its electric facilities.*

On September 3, 2008, and again on September 3, 2009, PEF met with all joint use attachers that have provided PEF contact information pursuant to Rule 25-6.0342(6). In those meetings, PEF provided those attachers comprehensive and detailed information on PEF's storm hardening plan. PEF provided written project descriptions and locations those third-party attachers on September 3<sup>rd</sup> of 2008 and 2009 and has subsequently interacted with any affected joint attacher in an effort to identify any costs, impacts to those attachers, or concerns. PEF has also answered any questions and addressed any concerns expressed verbally by joint attachers, and PEF has taken all input received into consideration in the development and finalization of its storm hardening plan.

# **ATTACHEMENT K**

# Comprehensive Wood Pole Inspection Plan

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## **Purpose and Intent of the Plan:**

To implement and update a wood pole inspection program that complies with FPSC Order No. PSC-06-0144-PAA-EI issued February 27, 2006 (the “Plan”). The Plan concerns inspection of wooden transmission and distribution poles, as well as pole inspections for strength requirements related to pole attachments. The Plan is based on the requirements of the National Electric Safety Code (“NESC”) and an average eight-year inspection cycle. The Plan provides a detailed program for gathering pole-specific data, pole inspection enforcement, co-located pole inspection, and estimated program funding. This Plan also sets forth pole inspection standards utilized by Progress Energy Florida (“PEF”) that meet or exceed the requirements of the NESC.

The Plan includes the following specific sub-plans:

- Transmission Wood Pole Inspection Plan (“Transmission Plan”).
- Distribution Wood Pole Inspection Plan (“Distribution Plan”).
- Joint Use Wood Pole Inspection Plan (“Joint Use Plan”).

These three inspection sub-plans are outlined and described below. All of these sub-plans will be evaluated on an ongoing basis to address trends, external factors beyond the Company’s control (such as storms and other weather events), and cost effectiveness.

## **1) Transmission Wood Pole Inspection Plan**

### **A. Introduction**

Ground-line inspection and treatment programs detect and treat decay and mechanical damage of in-service wood poles. PEF’s Transmission Department accomplishes this by identifying poles that are 8 years of age or older and treating these poles as necessary in order to extend their useful life. As required, PEF also assesses poles and structures for incremental attachments that may create additional loads. Poles that can no longer maintain the safety margins required by the NESC (ANSI C2-2002) will be remediated. These inspections result in one of four or a combination of the following actions: (1) No action required; (2) Application of treatment; (3) Repaired; (4) Replaced.

### **B. General Plan Provisions**

#### **(i). Pole Inspection Selection Criteria**

Transmission performs ground patrols to inspect transmission system line assets to allow for the planning, scheduling, and prioritization of corrective and preventative maintenance work. These patrols assess the overall condition of the assets including insulators, connections, grounding, and signs, as well as an assessment of pole integrity. These patrols are done on a three-year cycle and the assessment data and

## Comprehensive Wood Pole Inspection Plan

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reports generated from these patrols are used to plan the ground-line inspections set forth in Section 1B(ii) below. The ground patrol inspections categorize wood poles into four conditions or states (State 2-5). PEF conducts ground-line inspections of State 2 and 3 poles. State 3 poles are given priority for ground-line inspection scheduling. PEF replaces State 4 and 5 poles. PEF no longer utilizes the State 1 category.

In performing inspection and patrols, the following Transmission Line Wood Poles Inspection State Categories shall apply:

**State 2** : Meeting all of the criteria listed below:

- No woodpecker holes or woodpecker holes have been repaired.
- A pole that has been cut and capped.
- Checks/cracks show no decay or insect damage.
- Ground-line inspected/treated with no data in the remarks field of the report and no noted reduction in effective pole diameter.
- Hammer test indicates a hard pole.
- No pole top deflection noted.

**State 3** : Meeting one or more of the criteria listed below:

- Checks/cracks show decay or insect damage, or the presence of minimal shell cracking.
- Ground-line inspected/treated with decay noted in the remarks field of the report and a noted reduction in effective pole diameter.
- Hammer test indicates a minimal amount of ground-line decay.
- Pole has been repaired (e.g., C-truss).
- Poles with a wood bayonet or a pole that needs to be cut and capped.
- Pole can be partially hollow but with no less than 3 – 4 inches of shell thickness and cannot be caved during a hammer test.
- Pole top deflection is less than 3 feet.

**State 4** : Meeting one or more of the criteria listed below and should be scheduled to be replaced:

- Woodpecker holes which have deep cavities and are not repairable.
- Checks/cracks show significant decay or insect damage, or the presence of substantial shell cracking.
- Decay in the pole top is extensive such that the pole cannot be cut and capped nor is the pole top section a candidate for a bayonet.
- Ground-line inspected/treated and identified as rejected/restorable or rejected/non-restorable.
- When hammer tested, ground-line decay pockets are found and are greater than 5 inches wide and 2 inches deep.
- Pole is hollow with less than 3 – 4 inches of shell thickness extending over more than one-quarter of the pole circumference, determined by hammer test and/or a screw driver.
- Pole top deflection is between 3 to 5 feet.

## Comprehensive Wood Pole Inspection Plan

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**State 5** : Meeting one or more of the criteria listed below. (This pole should be scheduled to be replaced as soon as possible):

- Woodpecker holes which have deep cavities and are not repairable, severely affecting the integrity of the pole.
- Ground-line inspection indicates the pole as “priority.”
- When hammer tested, ground-line decay pockets are found and are greater than 8 inches wide by 3 inches deep.
- Pole is hollow with less than 2 inches of shell thickness extending over more than one-third of the pole circumference.
- Pole deflection exceeds 5 feet.

(ii). Ground-Line Inspections

Ground-line inspections of wood transmission poles are conducted by qualified pole inspectors on an average 8-year cycle. This results in, on average, approximately 12.5% of the remaining population of wood poles receiving this type of inspection on an annual basis. Treatment and inspection work shall be done or supervised by a foreman with a minimum of six months experience and shall be certified as being qualified for this work.

For poles without an existing inspection hole, the pole will be bored at a 45 degree angle below the ground line to a depth that extends past the center of the pole. For previously inspected poles, the original ground-line inspection plug shall be bored out and the depth of the inspection hole measured to ensure that the pole has been bored to the required depth. Treatment application plug(s) will be bored out and the depth of these holes measured to ensure compliance. Hammer marks should be evident to show that the pole has been adequately sounded.

All work done, materials used, and materials disposed of shall be in compliance and accordance with all local, municipal, county, state, and federal laws and regulations applicable to said work. Preservatives used shall conform to the minimum requirements as set forth in this Transmission Plan.

The inspection method used is a sound and bore inspection that will include the following components:

- Above Ground Observations - Visual inspection of the exterior condition of the pole and visual inspection of components hanging from the pole.
- Sound with Hammer – The exterior of the pole is tested with a hammer and the inspector listens for “hollowness” of the pole.
- Bore at Ground Line – The pole is bored at a 45 degree angle below the ground line. This inspection method helps to determine internal decay at the base as well as measure the amount of “good wood” left on the interior of the pole.

## Comprehensive Wood Pole Inspection Plan

- Excavate to 18 inches (Full Ground Line Inspection) – The soil is removed 18 inches below ground line. Decay pockets are identified and bored to determine the extent of decay.
- Removal of Surface Decay – Identified areas of decay are removed down to “good wood” using a sharp pick.
- Assessment of Remaining Strength – All data collected from the inspection will be used to determine effective circumference and remaining strength of the pole. In evaluating pole conditions, deductions shall be made from the original ground line circumference of a pole to account for hollow heart, internal decay pockets, and removal of external decay. The measured effective critical circumference shall be at the point of greatest decay removal in the vicinity of the ground line taking into account the above applicable deductions. A pole circumference calculator shall be used to determine the measured effective critical circumference. To remain in service “as-is,” the pole shall meet minimum NESC strength requirements. The measured effective critical circumference will be compared to the minimum acceptable circumference for the applicable class pole listed in the latest version of ANSI 05.1-1992, American National Standard for Wood Poles and NESC-C2-1990(1). Poles below the minimum acceptable circumference shall be rejected and will be marked in the field for replacement as either a State 4 or State 5 pole.
- Where excavation at the ground line cannot be achieved due to concrete or similar barriers, pole integrity will be assessed using a drilling resistance measuring device. These devices are now available on the market and are able to accurately detect voids and decay in poles at and below the ground where excavation is not possible.

### (iii) Structural Integrity Evaluation

As part of the visual inspection of the poles, the inspector will note and record the type and location of non-native utility pole attachments to the pole or structure. This information will be used by the Joint Use Department to perform a loading analysis on certain poles or structures, where necessary, as more fully described in the Joint Use section of this Plan. In such cases, the loading information obtained from this analysis will be used along with the strength determined in the ground-line inspection. If the loads exceed: a) the strength of the structure when new and b) the strength of the existing structure exceeds the strength required at replacement, according to the NESC, the structure will either be braced to the required strength or will be replaced with a pole of sufficient strength. Specific information on this process is contained in the Joint Use section of this Plan.

### (iv). Records and Reporting

A pole inspection report will be filed with the Division of Economic Regulation by March 1<sup>st</sup> of each year. The report shall contain the following information:

- 1) A description of the methods used for structural analysis and pole inspection.
- 2) A description of the selection criteria that was used to determine which poles would be inspected.



## Comprehensive Wood Pole Inspection Plan

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- 3) A summary report of the inspection data including the following:
- Total number of wood poles in Company inventory.
  - Number of pole inspections planned.
  - Number of poles inspected.
  - Number of poles failing inspection.
  - Pole failure rate (%) of poles inspected.
  - Number of poles designated for replacement.
  - Total number of poles replaced.
  - Number of poles requiring minor follow-up.
  - Number of poles overloaded.
  - Methods of inspection used.
  - Number of pole inspections planned for next annual inspection cycle.
  - Total number of poles inspected (cumulative) in the 8-year cycle to date.
  - Percentage of poles inspected (cumulative) in the 8-year cycle to date.
- 4) A pole inspection report that contains the following detailed information:
- Transmission circuit name.
  - Pole identification number.
  - Inspection results.
  - Remediation recommendation.
  - Status of remediation.

### **C. Program Cost and Funding**

- PEF continues to meet the obligations set forth in Order No. PCS-06-0144-PAA-EI. The number of poles inspected per year will start at approximately 3,800 poles, but may vary from year to year depending on previous years' accomplishments.

PEF is currently on track to meet the 8-year cycle requirements. The number of poles inspected may vary year to year depending on the previous year's accomplishments with the intent to complete inspections in the required timeframe. The estimated figures in the chart below are "best estimates," given information and facts known at this time and are subject to change or modification.

#### Wood Pole Program Cost Estimates

Annual Unit & Cost Estimate		
Cycle		
Years per cycle	8	
Poles inspected per year	3,800	On average; may vary year to year
Assumed poles replaced*	5%	Current future projections

# Comprehensive Wood Pole Inspection Plan

O&M Cost		
GL Inspection & Treatment	\$250,000	On average; may vary year to year
Capital Cost		
Pole & Insulator Replacements	\$6,000,000	On average; may vary year to year
Hurricane Hardening	\$7,000,000	On average; may vary year to year

\* Assumption is made that approximately 5% of the poles inspected will be identified for replacement.

## **2) Distribution Wood Pole Inspection Plan**

### **A. Introduction**

In accordance with FPSC Order No. PSC-06-0144-PAA-EI, PEF's Distribution Department inspects Company-owned wood poles on an average 8-year cycle. These inspections determine the extent of pole decay and any associated loss of strength. The information gathered from these inspections is used to determine pole replacements and to effectuate the extension of pole life through treatment and reinforcement. Additionally, information collected from the wood pole inspections is used to populate regulatory reporting requirements, provide data for loading analyses, identify other equipment maintenance issues, and used to track the results of the inspection program over time.

### **B. General Plan Provisions**

#### **(i). Ground-line Inspection Purpose**

- The ground-line inspection process is the industry standard for determining the existing condition of wood pole assets. This inspection helps to determine extent of decay and the remaining strength of a pole. Ground-line inspections also provide insight into the remaining life of a wood pole.
- The ground-line inspection is performed at the base of the pole because the base is the location of the largest "bending moment," as well as the area subject to the most fungal decay and insect attack. Assessing the condition of the pole at the base is the most efficient way to effectively treat and restore a wood pole.

#### **(ii). Pole Inspection Process**

When a wood distribution pole, other than a CCA pole, is inspected, the tasks listed below will be performed. For a CCA type wood distribution pole less than 16 years of age, the inspection will consist of a visual above ground inspection and sounding with hammer, both procedures are described below.

## Comprehensive Wood Pole Inspection Plan

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For CCA poles 16 years of age and greater, all inspection methods described below are used. Boring at Ground Line is also performed on type CCA poles when decay is present.

- Above Ground Observations - Visual inspection of the exterior condition of the pole and visual inspection of components hanging from the pole.
- Partial Excavation – The soil is removed around the base of the pole and the pole is inspected for signs of decay.
- Sound with Hammer – The exterior of the pole is tested with a hammer and the inspector listens for “hollowness” of the pole.
- Bore at Ground Line – The pole is bored at a 45 degree angle below the ground line. This inspection method helps to determine internal decay at the base as well as measure the amount of “good wood” left on the interior of the pole.
- Excavate to 18 Inches (Full Ground Line Inspection) – If significant decay is found during the full excavation, the soil is removed 18 inches below ground line. Decay pockets are identified and bored to determine the extent of decay.
- Removal of Surface Decay – Identified areas of decay are removed down to “good wood” using a sharp pick.
- Prioritization of rejected poles – rejected poles shall be assessed on their overall condition and then prioritized accordingly. Generally these poles will then be replaced in order of priority, from highest to lowest.
- For poles where obstructions, such as concrete encasement, make full excavation impractical PEF will utilize the best economical inspection process in accordance with Order No. PSC-08-0644-PAA-EI issued October 6, 2008.

### (iii) Data Collection

All data collected through the inspection process will be submitted to PEF’s Distribution Department in electronic format by inspection personnel. This data will be used to determine effective circumference and remaining strength of the pole. In evaluating pole conditions, deductions shall be made from the original ground line circumference of a pole to account for hollow heart, internal decay pockets, and removal of external decay. The measured effective critical circumference shall be at the point of greatest decay removal in the vicinity of the ground line taking into account the above applicable deductions. A pole circumference calculator shall be used to determine the measured effective critical circumference. To remain in service “as-is,” the pole shall meet minimum NESC strength requirements. The measured effective critical circumference will be compared to the applicable minimum acceptable circumference listed in the most current versions of ANSI 05.1-1992, American National Standard for Wood Poles, and NESC-C2-1990(1). Poles below the minimum acceptable circumference shall be rejected and will be marked in the field for replacement.

### (iv). Structural Integrity Evaluation

- See Joint Use Pole Inspection Plan, section B, paragraph (i).

## Comprehensive Wood Pole Inspection Plan

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(v). Records and Reporting

A pole inspection report will be filed with the Division of Economic Regulation by March 1<sup>st</sup> of each year. The report shall contain the following information:

- 1) A description of the methods used for structural analysis and pole inspection.
- 2) A description of the selection criteria that was used to determine which poles would be inspected.
- 3) A summary report of the inspection data including the following:
  - a. Total number of wood poles in Company inventory.
  - b. Number of pole inspections planned.
  - c. Number of poles inspected.
  - d. Number of poles failing inspection.
  - e. Pole failure rate (%) of poles inspected.
  - f. Number of poles designated for replacement.
  - g. Total number of poles replaced.
  - h. Number of poles requiring minor follow-up.
  - i. Number of poles overloaded.
  - j. Methods of inspection used.
  - k. Number of pole inspections planned for next annual inspection cycle.
  - l. Total number of poles inspected (cumulative) in the 8-year cycle to date.
  - m. Percentage of poles inspected (cumulative) in the 8-year cycle to date.
- 4) A pole inspection report that contains the following detailed information:
  - a. Distribution circuit name.
  - b. Pole identification number.
  - c. Inspection results.
  - d. Remediation recommendation.
  - e. Status of remediation.

### **C. Program Cost and Funding**

(i). Poles Program Cost Estimates

PEF continues to successfully meet the obligations set forth in Order No. PSC-06-0144-PAA-EI and continues to inspect poles based on the 8-year cycle as mandated by the FPSC. The number of poles inspected per year is expected to be approximately 96,000 poles, but may vary from year to year

## Comprehensive Wood Pole Inspection Plan

depending on previous years' accomplishments with the intent to complete inspections in the required timeframe. Funding requirements to meet all aspects of this program will be adjusted from year to year, as well. PEF is currently on track to meet the 8-year cycle requirements.

The estimated figures in the charts below are "best estimates," given information and facts known at this time and are subject to change or modification.

Annual Unit Estimate *							
Years per Cycle	# of Wood Poles to be inspected per year	Non-CCA Replacements	CCA Replacements	Non-CCA Bracing	CCA Bracing	Non-CCA Treatments	CCA Treatments
8	96,000	4,340	120	770	30	17,300	8,300

\* Assumption is made that approximately 2% of the non-CCA poles inspected will be identified for replacement.

Annual Cost Estimate							
Years per Cycle	O&M Costs		Capital		O&M Total	Capital Total	Program Total Cost
	Inspections (S&B + Excavation)	Treatments (add'l to inspection)	Replacements	Braces			
8	\$2,800,000	\$470,000	\$9,900,000	\$450,000	\$3,270,000	\$10,350,000	\$13,620,000

### **3) Joint Use Pole Inspection Plan**

#### **A. Introduction**

PEF currently has approximately 784,000 joint use attachments on distribution poles and approximately 8,300 joint use attachments on transmission poles. On average, PEF receives approximately 10,000 new attachment requests per year. All new attachment requests are reviewed in the field to assure the new attachments meet NESC and company clearance and structural guidelines. The information provided below outlines PEF's attachment permitting process and how PEF intends to gather structural information on certain existing joint use poles over an average 8-year inspection cycle to meet the obligations set forth in Order No. PCS-06-0144-PAA-EI.

#### **B. General Plan Provisions**

##### **(i). Structural Analysis for a Distribution Pole New Joint Use Attachment**

When the Joint Use Department receives a request to attach a new communication line to a distribution pole, the following is done to ensure that NESC clearance and loading requirements are met before permitting the new attachment:

## Comprehensive Wood Pole Inspection Plan

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- Each pole is field inspected, and the attachment heights of all electric and communication cables and equipment are collected. The pole number, pole size and class (type) are noted as well as span lengths of cables and wires on all sides of the pole.
- For each group of poles in a tangent line, the pole that has the most visible loading, line angle and longest or uneven span length is selected to be modeled for wind loading analysis.
- The selected pole's information is loaded into a software program called "SPIDA CALC" from IJUS. The pole information is analyzed and modeled under the NESC Light District settings of 9psf, no ice, 30° F, at 60 MPH winds to determine current loading percentages.
- If that one pole fails, the next worst case pole in that group of tangent poles is analyzed as well.
- Each pole is analyzed to determine existing pole loading and the proposed loading with the new attachment.
- If the existing analysis determines the pole is overloaded, a work order is issued to replace the pole with a larger class pole. If the pole fails only when the new attachment is considered, a work order estimate is made and presented to the communication company wishing to attach.
- The results of the analysis and the new attachment are entered into the FRAME system.

(ii). Structural Analysis for a Transmission Pole New Joint Use Attachment

When the Joint Use Department receives a request to attach a new communication line to a transmission pole with distribution underbuild, the following will be done to ensure that NESC clearance and loading requirements are met before permitting the new attachment:

- Each pole is field inspected, and the attachment heights of all electric and communication cables and equipment are collected. The pole number, pole size and class (type) are noted as well as span lengths of cables and wires on all sides of the pole.
- All pole information including structural plan and profiles are sent to the engineering company, Enercon in Longwood, Florida, to be modeled in PLS-CADD/LITE and PLS-POLE for structural analysis.
- Enercon engineers determine the worst case structures in a tangent line and request the structural drawings and attachment information on those selected poles. Typically, transmission poles with line angle and uneven span lengths are the poles considered for wind loading analysis.
- The selected pole information is loaded into the PLS-CADD and PLS-POLE software. Depending on the pole location per the NESC wind charts, one of the following load cases is run. **NESC Light District:** 9psf, no ice, 30° F, 60mph; **NESC Extreme:** 3 sec gust for the specific county, no ice, 60° F (Ex: Orange County is 110 mph); or **PEF Extreme** at 36psf, 75° F, wind chart mph
- If that one pole fails, the next worst case pole in that group of tangent poles is analyzed as well.
- Each pole is analyzed to determine existing pole loading and the proposed loading with the new attachment.



## Comprehensive Wood Pole Inspection Plan

- If the existing analysis determines the pole is overloaded, a work order is issued to replace the pole with a larger class pole. If the pole fails only when the new attachment is considered, a work order estimate is made and presented to the communication company wishing to attach.
- The results of the analysis and the new attachment are entered into the FRAME system.

### (iii). Analysis of Existing Joint Use Attachments On Distribution Poles

There are approximately 784,000 joint use attachments on approximately 515,000 distribution poles in the PEF system. All distribution poles with joint use attachments will be inspected on an average 8-year audit cycle to determine existing structural analysis for wind loading. These audits will start at the sub-station where the feeder originates. For each group of poles in a tangent line, the pole that has the most visible loading, line angle, and longest or uneven span length will be selected to be modeled for wind loading analysis. Each pole modeled will be field inspected. The attachment heights of all electric and communication cables and equipment will be collected. The pole age, pole type, pole number, pole size / class, span lengths of cables and wires, and the size of all cables and wires on all sides of the pole will be collected.

The selected pole's information will then be loaded into a software program called "SPIDA CALC" from IJUS. The pole information will be analyzed and modeled under the NESC Light District settings of 9psf, no ice, 30° F, at 60 MPH winds to determine current loading percentages. If that one pole fails, the next worst case pole in that group of tangent poles will be analyzed as well. Each pole analyzed will determine the existing pole loading of all electric and communication attachments on that pole. If the existing analysis determines the pole is overloaded, a work order will be issued to replace the pole with a larger class pole. Should the original pole analyzed meet the NESC loading requirements, all similar poles in that tangent line of poles will be noted as structurally sound and entered into the database as "PASSED" structural analysis. The results of the analysis and all communication attachments will be entered into the FRAMME system. Reporting from the GIS database will indicate the date and results of the analysis. Poles rated at 100% or lower will be designated as "PASSED." Poles that are analyzed and determined to be more than 100% loaded will be designated as "FAILED," and scheduled to be changed out. Once the pole is changed out, the GIS database will be updated to reflect the date the new pole was installed with the new loading analysis indicated.

### (iv). Analysis of Existing Joint Use Attachments On Transmission Poles

There are approximately 8,300 joint use attachments on approximately 2,800 transmission poles in the PEF system. All transmission poles with joint use attachments will be inspected on an average 8-year audit cycle to determine existing structural analysis for wind loading. Audits will start at the sub-station where the feeder originates. All pole information (pole size, class, type, age, pole number, cable, wire, equipment attachment heights, span lengths) including structural plan and profiles will be sent to the engineering company, Enercon in Longwood Florida, to be modeled in PLS-CADD/LITE and PLS-POLE for structural analysis. Enercon engineers will determine the worst case structures in a tangent line and

## Comprehensive Wood Pole Inspection Plan

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request the structural drawings and attachment information on those selected poles. Typically, transmission poles with line angle and uneven span lengths are the poles considered for wind loading analysis.

The selected pole information will be loaded into the PLS-CADD and PLS-POLE software. Depending on the pole location per the NESC wind charts, one of the following load cases is run. **NESC Light District:** 9psf, no ice, 30° F, 60mph; **NESC Extreme:** 3 sec gust for the specific county, no ice, 60° F (Ex: Orange County is 110 mph); or **PEF Extreme** at 36psf, 75° F, wind chart mph. If that one transmission pole fails, the next worst case pole in that group of tangent poles will be analyzed as well. Each transmission pole analyzed will determine the existing pole loading of all electric and communication attachments on that pole. If the existing analysis determines the transmission pole is overloaded, a work order will be issued to replace the pole with a larger class pole. Should the original pole analyzed meet the NESC loading requirements, all similar poles in that tangent line of poles will be noted as structurally sound and entered into the database as “PASSED” structural analysis.

The results of the analysis and all communication attachments will be entered into the GIS database. Reporting from the GIS database will indicate the date and results of the analysis. Transmission poles rated at 100% or lower will be designated as “PASSED.” Transmission poles that are analyzed and determined to be more than 100% loaded will be designated as “FAILED,” and scheduled to be changed out. Once the transmission pole is changed out, the GIS database will be updated to reflect the date the new pole was installed with the new loading analysis indicated.

### (v). Records and Reporting

A pole inspection report will be filed with the Division of Economic Regulation by March 1<sup>st</sup> of each year. The report shall contain the following information:

- 1) A description of the methods used for structural analysis and pole inspection.
- 2) A description of the selection criteria that was used to determine which poles would be inspected.
- 3) A summary report of the inspection data including the following:
  - a. Number of poles inspected.
  - b. Number of poles not requiring remediation.
  - c. Number of poles requiring remedial action.
  - d. Number of pole requiring minor follow up.
  - e. Number of poles requiring a change in inspection cycle.
  - f. Number of poles that were overloaded.
  - g. Number of inspections planned.

## Comprehensive Wood Pole Inspection Plan

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### **C. Program Cost and Funding**

#### **(i). Pole Analysis Funding**

As stated above, there are currently approximately 784,000 joint use attachments on approximately 515,000 distribution poles and approximately 8,300 joint use attachments on approximately 2,800 transmission poles. PEF will analyze the “worst case” poles in a tangent line of similar poles as deemed appropriate during field inspections.

In order to meet the obligations set forth in Order No. PCS-06-0144-PAA-EI, PEF requires incremental funding annually to successfully gather data and enter it into the required reporting format. See calculation that follows. The estimated figures in these charts are “best estimates,” given information and facts known at this time and are subject to change or modification.

<b>Annual Unit &amp; Cost Estimate</b>									
Distribution poles with joint use	Annual inspected (8-yr cycle)	10% of Distribution poles analyzed	1% of Distribution poles replaced	Transmission poles with joint use	Annual inspected (8-yr cycle)	30% of Transmission poles analyzed	10% of Transmission poles replaced	Total cost to analyze poles (O&M)	Total cost to replace poles (capital)
515,000	63,750	6,375	191	2,800	338	101	10	\$607,183	\$505,600

# **ATTACHEMENT L**

## Major Conversions Historical Data

	WRs Completed											
	All Years	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002
No. of WRs	345	6	9	57	10	42	42	40	43	26	51	19
Manhour Estimate	179,400	6,214	2,732	16,655	2,517	41,151	27,719	25,415	37,511	10,558	7,711	1,218
Manhours Charged	169,150	2,098	2,185	10,057	2,528	41,167	27,994	25,527	38,080	10,571	7,720	1,223
No. of Units (Ft)	371,730	16,196	7,124	85,920	4,961	74,467	48,197	52,807	55,108	11,121	14,117	1,712
No. of Units (Miles)	70	3.07	1.35	16.27	0.94	14.10	9.13	10.00	10.44	2.11	2.67	0.32
Estimated Cost	20,116,996	1,135,639	363,620	2,079,768	391,373	\$ 4,824,690	\$ 3,734,020	\$ 2,934,875	\$ 2,686,765	\$ 882,087	\$ 914,825	\$ 169,334
CIAC	15,560,982	649,801	662,461	2,376,753	462,338	\$ 2,681,567	\$ 3,866,787	\$ 2,045,350	\$ 1,649,664	\$ 710,797	\$ 377,393	\$ 78,071
No of WRs with CIAC Paid (in STORMS/WMIS)	59%	202	6	7	18	9	31	29	27	23	17	24
Est. Cost of those WRs with no CIAC Paid	31%	6,277,457	-	\$ 17,845	\$ 954,068	\$ 30,904	\$ 1,172,514	\$ 1,363,212	\$ 717,415	\$ 1,467,711	\$ 165,739	\$ 336,120
Est Cost of those WRs with CIAC Paid	69%	13,839,539	1,135,639	\$ 345,775	\$ 1,125,700	\$ 360,469	\$ 3,652,176	\$ 2,370,808	\$ 2,217,460	\$ 1,219,054	\$ 716,348	\$ 578,705
CIAC Ratio of those with CIAC Paid		112%	57%	192%	211%	128%	73%	163%	92%	135%	99%	65%
CIAC Ratio Overall		77%	57%	182%	114%	118%	56%	104%	70%	61%	81%	41%
<b>Based on Units &gt;50</b>												
No of WRs with >50 Units	59%	203	6	6	36	9	30	32	23	13	14	2
Est Cost of WRs with >50 units	88%	\$ 17,774,006	\$ 1,135,639	\$ 344,147	\$ 1,809,600	\$ 380,285	\$ 4,390,458	\$ 3,177,390	\$ 2,895,514	\$ 2,563,259	\$ 627,324	\$ 400,182
Manhours Est of WRs with >50 Units	93%	156,736	6,214	2,592	14,737	2,452	37,109	22,737	24,383	35,633	6,703	3,936
No of Units (Ft) for WRs with >50 Units	100%	371,580	16,196	7,122	85,913	4,959	74,440	48,194	52,775	55,068	11,115	14,094
No of Units (Miles) for WRs with >50 Units		70.38	3.07	1.35	16.27	0.94	14.10	9.13	10.00	10.43	2.11	2.67
Cost per manhour of WRs with >50 Units		\$ 113.40	\$ 182.77	\$ 132.79	\$ 122.79	\$ 155.09	\$ 118.31	\$ 139.75	\$ 118.75	\$ 71.93	\$ 93.59	\$ 101.67
Cost per manhour of All WRs		\$ 118.93	\$ 541.19	\$ 166.42	\$ 206.80	\$ 154.82	\$ 117.20	\$ 133.39	\$ 114.97	\$ 70.56	\$ 83.44	\$ 118.50
Cost per Unit (Ft) of WRs with >50 Units		\$ 47.83	\$ 70.12	\$ 48.32	\$ 21.06	\$ 76.69	\$ 58.98	\$ 65.93	\$ 54.87	\$ 46.55	\$ 56.44	\$ 28.39
Cost per Unit (Ft) of All WRs		\$ 54.12	\$ 70.12	\$ 51.04	\$ 24.21	\$ 78.89	\$ 64.79	\$ 77.47	\$ 55.58	\$ 48.75	\$ 79.32	\$ 64.80
Cost per Unit (Mile) of WRs with >50 Units		\$ 252,561	\$ 370,226	\$ 255,139	\$ 111,214	\$ 404,901	\$ 311,413	\$ 348,106	\$ 289,689	\$ 245,769	\$ 298,000	\$ 149,919
Cost per Unit (Mile) of All WRs		\$ 285,739	\$ 370,226	\$ 269,500	\$ 127,807	\$ 416,539	\$ 342,089	\$ 409,063	\$ 293,449	\$ 257,424	\$ 418,795	\$ 342,160
Manhour per Unit (Ft) of WRs with >50 Units		0.42	0.38	0.36	0.17	0.49	0.50	0.47	0.46	0.65	0.60	0.28
Manhour per Unit (Ft) of All WRs		0.46	0.13	0.31	0.12	0.51	0.55	0.58	0.48	0.69	0.95	0.55
Manhour per Unit (Mile) of WRs with >50 Units		2,227	2,026	1,921	906	2,611	2,632	2,491	2,439	3,417	3,184	1,475
Manhour per Unit (Mile) of All WRs		2,403	684	1,619	618	2,691	2,919	3,067	2,552	3,649	5,019	2,887

Note: Data is from STORMS and only those WRs that are completed.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
No. of Units (Miles)	0.32	2.67	2.11	10.43	10.00	9.13	14.10	0.94	16.27	1.35	3.07
Estimated Cost	\$ 169,334	\$ 914,825	\$ 882,087	\$ 2,686,765	\$ 2,934,875	\$ 3,734,020	\$ 4,824,690	\$ 391,373	\$ 2,079,768	\$ 363,620	\$ 1,135,639
Cost per Unit (Ft) of WRs with >50 Units	\$ 29.46	\$ 28.39	\$ 56.44	\$ 46.55	\$ 54.87	\$ 65.93	\$ 58.98	\$ 76.69	\$ 21.06	\$ 48.32	\$ 70.12

# **ATTACHEMENT M**

# Transmission Line Material Condition Assessment Procedure; Ground Patrols

MNT-TRMX-00053

Applies to: Transmission Operations and Planning Department – Carolinas and Florida

Keywords: maintenance; transmission – maintenance line

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## 1.0 Purpose

The material condition of the transmission line structures must be periodically assessed to ensure the assets are in optimum condition. The primary goal of the line assessment is to inspect transmission line structures and associated hardware on a routine basis with the purpose of finding and documenting any required material repairs or replacements. A secondary goal is to periodically inspect the general condition of the right-of-way including emergency type danger trees, ditches, access locations, and encroachments.

## 2.0 Determining Risk

The State Code represents a components present condition and ranges from a State 1 to State 5. The ground patrol requires the state of all the line components, including switches, poles, crossarms, conductors, etc., to be collected by means of computer software and uploaded into Cascade. This information is then integrated with the known criticality of the line. This determines the risk of the line to the Department. Unacceptable risks have high probabilities of degrading service to customers, negatively impacting reliability, or incurring increased O&M or capital costs to the company.

## 3.0 Terms and Definitions

**3.1 Ground Patrol:** The ground patrol is a detailed assessment of a line's structures, crossarms, insulators, guys, anchors, static wires, and conductors. The ground patrol also includes an assessment of the overall condition of the right-of-way, including access, ditches, encroachments, and the recording of vegetation issues whose clearance to conductor warrant review by the Area Transmission Forester including dead, diseased, dying, leaning or uprooted trees.

**3.2 Climbing Inspections:** A key component of the ground patrol is evaluating the condition of insulators & wood crossarms. These components cannot always be properly evaluated from the ground, even with binoculars. Therefore, when the condition of components up the structure appears suspect, poles & towers should be climbed or assessed with a bucket. This may expose line deficiencies that may be more widespread, such as penciled porcelain insulators on multiple structures.



- 3.3 High Risk Areas:** These are defined as areas adjacent to industrial areas, plants with caustic type emissions, or the ocean or salt spray. The responsibility of recognizing these areas is left to the line crew as the material condition is indicative that the line structure is indeed in such an area.
- 3.4 Patrol versus Repairs:** Repairs to poles during a patrol should be limited. Generally, found deficiencies should have work orders written and later scheduled for completion based on prioritization. This methodology insures all lines receive an appropriate amount of inspection and the most critical of work is completed first.

## **4.0 Roles and Responsibilities**

- 4.1 Line Technician:** The Line Technician is tasked with completing the line assessment. Specific responsibilities include:

- 4.1.1 Utilize the guidance contained in this document to accurately classify and assess the condition of transmission line components.
- 4.1.2 Write work orders for all O&M and capital work.
- 4.1.3 Utilize Cascade to assess the condition of all line equipment including selecting appropriate component state codes when repairs or replacements are necessary.
- 4.1.4 Immediately communicate any imminent vegetation threats to the transmission line to the Area Transmission Forester & the Line Maintenance Supervisor by means of a cell phone call, as per the TVM Program: Imminent Threat Communication Procedure ([MNT-TRMX-00192](#)). At a minimum, that communication should include the line name/code, span information, and relevant information about the threatening vegetation.

Vegetation concerns not deemed to be imminent danger to the transmission lines should be reported to the Area Transmission Forester either by phone or E-mail in a timely manner.

- 4.2 Line Supervisor:** The Line Supervisor is tasked with providing oversight and planning for the assessment process. Specific responsibilities include:

- 4.2.1 Provide input to the prioritization of when lines are patrolled.
- 4.2.2 Ensure Ground Patrol Assessments are conducted at intervals identified in the Transmission Line Equipment Maintenance Schedules Procedure ([MNT-TRMX-00051](#)), to be completed within 125% of the due date.
- 4.2.3 Ensure supplemental Assessments are conducted for pending construction projects or in reaction to significant line operations.
- 4.2.4 Ensure poles and towers are properly inspected & climbed.

- 4.2.5 Ensure all O&M and capital work orders are written to the data management tool in a timely manner.
- 4.2.6 Ensure the Ground Patrol Job Plan is completed within 30 days of a Ground Patrol and is forwarded to the responsible individuals.
- 4.2.7 Ensure vegetation threats to the transmission lines are communicated in a timely manner to the Area Transmission Forester.

## **5.0 Precautions and Limitations**

Ground patrol assessments will be conducted in accordance with all applicable Company safety rules, OSHA regulations, work practices, & federal, state, and local regulations.

## **6.0 Material and Special Equipment**

Image stabilizer type binoculars are required for assessing structure hardware, particularly the underside of porcelain insulators or the end fittings on polymer insulators. Binoculars are needed to inspect for signs of hardware, insulator, conductor, or ground wire connection corrosion. A thorough inspection of all structures is expected.

## **7.0 Inspection and Climbing Requirements**

In certain situations, a climbing inspection is to be performed in addition to the ground patrol. During the climbing patrol, all insulators, pole attachments, hardware, and connections are to be inspected. Crews are to document which structures are climbed so different structures are inspected during subsequent patrols.

Poles with distribution underbuild cannot be climbed. These locations should be noted and should be followed up later with a more detailed helicopter assessment or by utilizing a bucket in cases where crossarm or insulator integrity is suspicious.

- 7.1 Lattice Tower Lines shall have a detailed climbing inspection performed on at least every 15<sup>th</sup> tower, more often if any component deterioration is found.
- 7.2 Wood Pole Lines do **not** require a detailed climbing unless the line is located in a High Risk Area or if component deterioration is found.
- 7.3 Concrete and Steel Pole Lines do **not** require a detailed climbing inspection unless the line is located in a High Risk Area or if component deterioration is found.
- 7.4 Structures located adjacent to or in an industrial area or plant with caustic type emissions are required to have a detailed climbing inspection performed on **all** potentially affected structures.
- 7.5 Lines located adjacent to or in an area with known salt contamination and constructed with porcelain insulators are to have a detailed climbing inspection performed on every 5<sup>th</sup> structure, more often if component deterioration is found.

## 8.0 Simplified Component Assessment Definitions

- 8.1 **STATE 1** components are new or less than 10 years old & are in excellent condition.
- 8.2 **STATE 2** components are greater than 10 years old but are in excellent condition.
- 8.3 **STATE 3** has some maintenance issues, primarily consisting of non-critical repair needs, or the component is in otherwise good condition.
- 8.4 **STATE 4** components are in need of replacement.
- 8.5 **STATE 5** components require IMMEDIATE attention.

## 9.0 Critical/Major System Components & State Codes

### 9.1 Transmission Wood Poles

9.1.1 **State 1** is described as meeting the criteria listed below:

- A wood pole up to 10 years of age & in excellent condition.

9.1.2 **State 2** is described as meeting all of the criteria listed below:

- Hammer indicates a hard pole with no soft spots or decay from the pole groundline to 6 feet
- Hammer cannot cave the pole, i.e. head of hammer embedded in pole
- No woodpecker holes or woodpecker holes have been repaired
- Pole checks may be present but with no evidence of decay, insect damage, or shell cracking
- If available, recent contracted pole inspection company inspection report shows no reduction in effective pole diameter
- No longitudinal pole top deflection present, i.e. pole is straight

9.1.3 **State 3** is described as meeting ANY of the criteria listed below:

- Hammer reveals minimal amount of groundline decay or insect damage confined to small pockets extending no more than 2 inches into the pole
- Hammer up the pole reveals minor shell cracking or soft wood, indicated by sound or caving
- Woodpecker holes are present but are not located in critical pole locations and do not contain nesting cavities
- Pole checks show evidence of decay, insect damage, or shell cracking
- Pole has been cut and capped, C-trussed, or has a wood bayonet
- Pole has a deteriorated pole cap
- Contracted pole inspection company inspection report includes a reduction in effective pole diameter

- Screwdriver probes indicate the center of pole to be partially hollow with at least 4 inches of shell thickness remaining in all directions
- Longitudinal pole top deflection between 2 - 3 feet
- Pole has Cellon treatment

9.1.4 **State 4** is described as meeting ANY of the criteria listed below and should be planned & scheduled to be replaced:

- Hammer reveals significant groundline decay pockets that are greater than 6 inches wide and 3 inches deep
- Hammer reveals significant shell cracking or soft wood, indicated by sound or caving of the wood
- Woodpecker holes are deep and may include nesting cavities, are located in critical areas, or are not repairable
- Pole checks reveal significant evidence of decay, insect damage, or shell cracking extending deep into the pole, as indicated by caving the pole, sawdust, or sound
- Pole top decay is extensive such that the pole cannot be cut and capped
- Contracted pole inspection company inspection report rejects the pole
- Pole is hollow with less than 4 inches of shell thickness extending over more than one-quarter of the pole circumference
- Longitudinal pole top deflection is between 3 to 5 feet



**State 4 Pole w/ Internal Decay**



#### State 4 Woodpecker Holes

Note: Critical woodpecker hole locations include holes in the vicinity of the crossarm, plankarm, crossbrace, guy, or insulator connections to the pole. (The holes in the above photograph are in critical locations).

9.1.5 **State 5** is described as meeting one or more of the criteria listed below. This pole should be scheduled to be replaced as soon as possible:

- Hammer reveals decay extending to the center of the pole
- Woodpecker holes are extensive, severely affecting the pole integrity
- Contracted pole inspection company report indicates the pole as “priority”
- Pole is hollow with less than 2 inches of shell thickness extending over more than one-quarter of the pole circumference
- Longitudinal pole deflection exceeds 5 feet



**State 5 Internal Decay**



**State 5 Internal Decay**





**State 5 Shell Crack**



**State 5 Pole Shell Crack**



**State 5 WoodPecker Holes  
(with large internal cavity)**



**State 5 Groundline Pole Decay**

## 9.2 Transmission Line Crossarms, Plankarms, Crossbraces, & Kneebraces

9.2.1 **State 1** is described as meeting the criteria listed below:

- Crossarms, Crossbraces, or Kneebraces are steel

9.2.2 **State 2** is described as meeting all of the criteria listed below:

- Wood; when hammer tested, member is hard
- No Woodpecker holes or rot present
- Galvanized or painted steel members have minimal rust
- There is no loose hardware

9.2.3 **State 4** is described as meeting one or more of the criteria listed below and should be scheduled to be restored or replaced:

- When hammer tested, member can be caved
- Separation exists between laminates sections of crossbraces
- Member has wide (> 1 inch) cracks that can hold water
- Woodpecker holes are present
- There is missing hardware

9.2.3 **State 5** is described as needing immediate attention

### 9.3 Transmission Line Lattice Towers, Steel & Concrete Poles

9.3.1 **State 1** is described as meeting all of the criteria listed below:

- Poles or Towers are new, less than 10 years old
- No visible signs of deterioration

9.3.2 **State 2** is described as meeting all of the criteria listed below:

- Galvanized or painted steel pole or towers have minimal surface rust
- No pack-out on tower bracing at member connections to tower legs
- Groundline treatment on steel pole or tower is totally intact & has not deteriorated
- Grout on top of concrete pole is intact
- Concrete surface may have hairline cracks, but less than 1/8 inch wide

9.3.3 **State 3** is described as meeting one or more of the criteria listed below:

- Galvanized or painted steel pole or towers have rust and needs painting
- Weathering steel poles or tower members exhibit minimal pitting
- Aluminum towers exhibit minimal surface deterioration.
- Light pack-out on tower bracing at member connections to tower legs
- Groundline treatment on steel pole or tower is cracked, or peeled, but rusting has not yet occurred
- Grout on top of concrete pole is cracked
- Concrete surface may have hairline cracks, but less than 1/8 inch wide

9.3.4 **State 4** is described as meeting one or more of the criteria listed below:

- Galvanized or painted steel pole or towers have deep rust, needs cleaning, priming, & painting
- Weathering steel poles or towers exhibit heavy pack-out including deformed or missing members or bolts
- Aluminum towers exhibit deformed or missing members or bolts
- Concrete poles has rust stains originating from inside the crack from the reinforcing steel or cracks more that ¼ inch wide

9.3.5 **State 5** is described as needing immediate attention



## 9.4 Transmission Line Porcelain Insulators

9.4.1 **State 1** has no visible signs of deterioration, cracking, chipping, or pin rust

9.4.2 **State 3** is described as meeting one or more of the criteria listed below:

- Displays initial signs of pin rust but without noticeable loss of material or swelling of the pin base
- Up to two individual insulator units within a string with cracked or broken skirts at 69/115 kV, or up to three at 230/500 kV
- Any individual insulator unit within a string with signs of electrical flashing
- Insulator units with bird contamination



**Typical State 3 “Ball & Socket” Insulator**

9.4.3 **State 4** is described as meeting one or more of the criteria listed below and should be replaced:

- These insulators have advanced pin rust with noticeable loss of material and/or swelling of the pin base
- Three or more individual insulator units within a string with cracked or broken skirts at 69/115 kV, or four or more for 230/500 kV
- Three or more individual insulator units within a string with signs of electrical flashing
- Insulator fails a dielectric test



**Typical State 4 “Ball & Socket” Insulators**

9.4.4 **State 5** is described as needing immediate attention

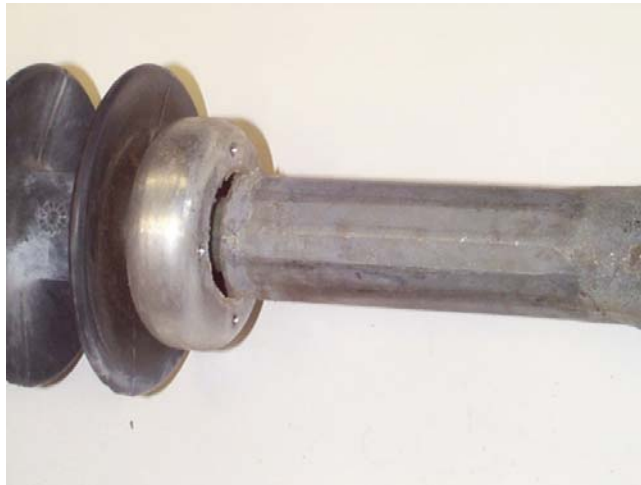
## 9.5 Transmission Line Polymer Insulators

9.5.1 **State 1** has no visible signs of deterioration

9.5.2 **State 3** has moderate amounts of chalking

9.5.3 **State 4** is described as meeting one or more of the criteria listed below and should be replaced:

- Has an exposed fiberglass rod
- Has open splits or gaps in the rubber housing
- Displays signs of electrical tracking or leaking interface compound
- Has missing corona rings (230 kV)



**Exposed Fiberglass Rod (Ohio Brass)**



**Split Housing (Ohio Brass)**

9.5.4 **State 5** is described as needing immediate attention

## 9.6 Transmission Line Conductors

9.6.1 **State 2** conductor has no visible wear

9.6.2 **State 3** is described as meeting one or more of the criteria listed below and should be repaired:

- Minor core rusting or corrosion
- Minor “Birdcage” of any conductor
- Conductor aluminum strands are unraveled
- Ohm-stick” conductor splice resistance readings indicating a recommended recheck in one year

9.6.3 **State 4** is described as needing immediate attention and meets one or more of the criteria listed below and should be repaired or replaced:

- Conductor steel core has severe corrosion.
- Conductor shot through the steel strands.
- “Ohm-stick” conductor splice resistance readings indicating a recommendation to immediately replace

9.6.4 **State 5** is described as needing immediate attention

## 9.7 Transmission Line Overhead Ground Wires (Statics, OHGW, OHG, OPGW)

9.7.1 **State 2** static has no visible wear

9.7.2 **State 3** is described as meeting one or more of the criteria listed below:

- Static has minor rusting, corrosion, or visible pitting
- Mechanical static splices present
- Statics including 5/16”, 3#6, & 7#10
- “Ohm-stick” conductor splice resistance readings indicating a recommended recheck in one year

9.7.3 **State 4** is described as meeting one or more of the criteria listed below and should be repaired or replaced:

- Any broken strands
- “Ohm-stick” conductor splice resistance readings indicating a recommendation to immediately replace.
- Static is severely rusted and or has become brittle. This condition can also be supported with lab testing of static samples.

9.7.4 **State 5** is described as needing immediate attention

## 9.8 Transmission Line Anchors and Guy Wires

9.8.1 **State 2** anchors & guys have no visible wear

- Guy Grips & anchor heads are all above groundline
- Guys are tight.

9.8.2 **State 3** is described as meeting one or more of the criteria listed below:

- Guys have been damaged
- Guy Grips & anchor heads are at or below groundline
- Grade modifications have exposed the top portion of the anchor
- Guys are loose and can be swayed

9.8.3 **State 5** is described as needing immediate attention

## 9.9 Transmission Line Switches

9.9.1 **State 1** is described as meeting all of the criteria listed below:

- The switch is new or less than 10 years old & is in excellent condition.
- All preventative maintenance is completed within 125% of the established due date
- No know material defects
- Infrared readings are normal

9.9.2 **State 2** is described as meeting all of the criteria listed below:

- The switch is greater than 10 years old & is in excellent condition
- All preventative maintenance is completed within 125% of the established due date
- No know material defects
- Infrared readings are normal

9.9.3 **State 3** is described as meeting one or more of the criteria listed below:

- Preventative maintenance activities are overdue by more than 125% of the established completion date
- Switch has a history of mechanical issues that have required attention on several occasions
- Switch is mounted on a wood pole structure
- Infrared readings slightly above normal

9.9.4 **State 4** is described as meeting one or more of the criteria listed below:

- Preventative maintenance activities are overdue by more than 150% of the established completion date.
- Switch has mechanical issues that require attention whenever it is operated
- Infrared readings are high and require adjustment of blade/jaw interface or replacement

9.9.5 **State 5** is described as needing immediate attention, or:

- Infrared readings indicate immediate action is required
- The switch is tagged out of service with the ECC due to mechanical or operational problems
- Interrupter has lost dielectric strength, i.e. no vacuum or gas is present.

## 9.10 Transmission Minor Components

- 9.10.1 **Aerial Markers;** Inspect for faded, partially detached, or missing markers.
- 9.10.2 **Arrestors;** Inspect for loose hardware, detached jumpers, cracks, signs of being burned, or with high infrared readings.
- 9.10.3 **Bird Contamination;** Inspect for bird droppings on crossarms, the ground, and stains on porcelain insulator strings. Significant activity may warrant the installation of protective bird guards.
- 9.10.4 **Conductor Splices;** Inspect for rusted strands or a discharge of the conductive grease at the splice ends. The color will normally be black. Elevated infrared readings will indicate if the splice is in a critical state. The “Ohmstick” is an effective means of evaluating a splices’ integrity.
- 9.10.5 **Connections;** Inspect for bent, cracked, or missing hardware, and loose or missing bolts.
- 9.10.6 **Dampers;** Inspect for bent, cracked, or missing nuts. Look for signs of being broken loose and sliding away from the insulator.
- 9.10.7 **Encroachments;** Inspect for buildings, deer stands, ditches, fences, and elevation changes including ditches affecting access and mounds.
- 9.10.8 **Grounding;** Inspect for broken or deteriorated pole grounds and for unattached flying taps or bonding straps to the overhead ground wire.
- 9.10.9 **Guy Strain Insulators;** Inspect coatings for cracking and chipping as they protect the fiberglass insulator rod from ultraviolet radiation. Inspect end fittings for deterioration. Insulators with significantly frayed glass or splintering should be replaced.
- 9.10.10 **Line Traps;** Inspect for bent, cracked, or missing hardware.
- 9.10.11 **Pole Bands;** Inspect for broken thru bolts and pulled out lag screws, particularly on conductor deadends.

- 9.10.12 **ROW Condition;** Inspect for burn or dirt piles, trees that may affect the reliability of the line, vines, and any change in grade due to earthmoving activities.
- 9.10.13 **U-bolts used on steel crossarms;** Inspect for loose hardware. Particular attention should be given to rusting nuts and washers on 5/8" diameter weathering U-bolts.
- 9.10.14 **Warning Signs;** Inspect for faded, detached or missing signs. Insure signs used for helicopter patrols are present at all crossings.

## 10.0 References

- 10.1 Ground Patrol Assessments shall be followed in accordance with the Transmission Maintenance Program Policy ([MNT-TRMX-00000](#)).
- 10.2 Ground Patrol Assessments will be conducted at intervals identified in the Transmission Line Equipment Maintenance Schedules Procedure ([MNT-TRMX-00051](#)).

# ATTACHEMENT N



PROGRESS ENERGY FLORIDA  
2012 HURRICANE SEASON READINESS

Florida PSC Hurricane Preparedness Session  
Speaker Notes to Accompany Presentation

May 9, 2012

Hurricane Preparedness (Slide #2)

Good afternoon Mister Chairman and Commissioners, Thank you for this opportunity to report the status of Progress Energy Florida's 2012 hurricane season preparation.

I'll begin with a brief summary of the information to follow. Our transmission and distribution systems are again well maintained and inspected. Our storm response organization is drilled and prepared. And critical labor and material resources have been obtained in advance or secured through commitments from external suppliers.

Our T&D **delivery infrastructure** performed well in the 2004 and 2005 hurricane seasons, and in more recent severe weather events. We've improved the system each year, taking additional aggressive hardening measures in conjunction with Public Service Commission initiatives including the ongoing 10-point readiness plan and wood pole inspection process.

Our hurricane restoration **operational plan**, which also functioned well in 2004 and 2005, has undergone annual review and continuous improvement. All lessons learned from past major and mid-level storms, annual drills, and experiences of other utilities across the nation are incorporated into our 2012 response plan document - and were included in our 2012 hurricane drill conducted in April.

In summary: Progress Energy's organization and T&D delivery system are prepared for the 2012 hurricane season.

I will now discuss in a bit more detail the key components of our annual hurricane season preparation:

1. Distribution and Transmission System readiness,
2. Organization readiness, and
3. Coordination with Local Governments.

### Distribution System Readiness (Slide #3)

Our wood pole plant continues on a firm 8 year cycle for inspections and maintenance, and complies with the Commission's storm preparedness initiative. Inspections are targeted and prioritized based on hurricane risk. In 2011 over 99,000 distribution poles were inspected, more than 57,000 treated to prevent decay, and over 2,800 replaced.

Other 2011 system maintenance activities included 997 padmount transformer replacements, 88,000 circuit feet of hardening rebuild projects, and over 600,000 feet of underground cable replacement. Distribution system inspection, maintenance, and replacement projects are the cornerstone of Progress Energy's overall annual resource plan. Manpower and material needs are identified in the prior year to prioritize work, construct efficiently, and complete on schedule.

Progress Energy is on a 3 year backbone, 5 year lateral vegetation management cycle. In 2011 the second full 3-year backbone cycle was completed. Our 2012 VM trimming program is on schedule including May completion of pre-season visual patrols of all 3,600 backbone miles and June completion of follow up pruning and tree removal. Already in the first quarter of 2012 VM operations have removed over 1,100 trees, hot spot trimming of over 9,800, and applied herbicide to more 600 miles of right-of-way floor.

Progress Energy remains fully committed to the Public Service Commission's 10-Point preparedness plan including the following:

- A full inventory of Joint Use attachments was completed in 2011 and now details each attaching company on each pole in the system.
- Roll out of the Logica ARMs Suite work management and facilities management systems in 2011, now fully integrated with a GIS system upgraded 2008.
- A post-storm forensic process capable of responding to major and mid-level events.
- And as mentioned earlier, annual review and update to our documented Hurricane Restoration Operational Plan.

Finally, as described in our 2010 Three Year Hardening Plan - we continue to implement a comprehensive process to identify, prioritize, and assess storm hardening options within our service territory.

#### Transmission System Readiness (Slide #4)

Transmission system readiness is built upon comprehensive structure inspections and system maintenance. In 2011 inspections were completed on 184 transmission circuits and over 11,000 wood structures. And more than 1,500 wood structures were replaced with steel or concrete in accordance with NESC extreme wind design.

Since 2006, we've replaced over 10,000 wood poles with steel or concrete, continuing systematic hardening via maintenance upgrades, DOT relocations, and line rebuilds. Aerial patrols of the entire transmission system took place in quarters 2 and 4 of 2011, and are underway in 2012. Inspections are also complete inside all 481 substations, as is all identified critical follow-up maintenance.

Transmission Vegetation Management projects in 2011 cleared 1,176 miles of right of way. This work included 267 miles of herbicide application, 61,347 tree removals and removal of 2,382 danger trees outside the right-of-way. 2012 projects are on schedule to clear 274 miles of right of way in addition to tree work identified by aerial and ground inspections.

And the PSC 10-Point storm preparedness plan and Storm Hardening rule have been implemented including enhanced GIS capability, post-storm forensic data collection, structure inspection cycles, and most notably, the hardening by way of wood pole replacement with concrete or steel.

## Storm Restoration Organizational Readiness (Slide #5)

The annual Storm Plan review and update process is complete for the 2012 season. A recent addition is pro-active communication to critical care customers. Prior to a hurricane landfall, customers identified with a critical care need receive a phone call from Progress Energy. The agent delivers a preparation message including location of area shelters equipped to provide critical care assistance and a reminder to check in advance the working condition of backup life support equipment.

Our 2012 hurricane drill was completed last month. Individual storm organizations and process owners were tested on their preparation efforts and ability to react to changing storm conditions. This drill and accompanying table-top and training exercises are a clearly demonstrated our readiness for the 2012 season.

We've also taken steps to ensure access to critical restoration material and fuel from multiple sources. Inventory levels of critical material has been increased over and above normal stock levels. Our supply chain organization has assembled 16 "storm kits". These kits, staged throughout our territory, each contain enough emergency material to supply 400 linemen for up to 3 days. Our Transmission organization has increased its inventory of poles, insulators, and other hardware to supply contract and company resources for 3 to 5 days. And we've negotiated retainer contracts with fuel vendors to ensure fuel needs are met - arrangements that also improve access to fuel when sending Progress Energy repair crews off-system in support of our mutual assistance partners in Florida and elsewhere. Even though we have supplier agreements in place, these additional measures ensure that restoration can begin as soon as weather clears and safety allows.

External Line and Tree Trimming personnel are vital elements of a successful operation. And we've taken steps to ensure access through arrangements with contractors and relationships with other utilities through regional mutual assistance organizations like the Edison Electric Institute and the Southeastern Electric Exchange.

### Coordination w/Local Government (Slide #6)

Our communication and coordination with local leaders has been strengthened in 2012. Each year we enhance the program based on input from local government.

We've maintain a cross-functional government coordination team to ensure two-way communication and collaboration with County EOCs and local leaders. We include EOC leaders in our drills, and our representatives participate in EOC run drills – including annual prioritization of critical infrastructure. By placing PEF representatives inside many County EOC's we're able to incorporate local government's priorities into our tactical restoration plan.

Progress Energy is equipped to provide local governments with resource and restoration information before, during, and after storm events to assist them with local emergency response. Our program is operational year round. Detailed outage information down to a square mile grid is provided via secure file to EOCs in multiple formats - including data that can be imported into County GIS systems. Additionally, we're now able to provide detailed outage maps during mid-level storms to supplement outage maps and estimated restoration times available on our external website.

And we continue the "Know Where You Grow" program, which informs the public and community organizations of the most compatible tree species near power lines.

Finally, we enthusiastically participate in public education and community leader forums like the recent Tampa Bay Forum's Coastal Cites Summit.

## Conclusion (Slide #7)

Even with the best preparation Mother Nature presents risks and areas of vulnerability. They fall into two general areas:

1. Restoration resource limitations
2. Cataclysmic damage.

First - Anything that dilutes resources is a risk – primarily multiple and/or severe weather events in the Region. To mitigate this we maintain robust relationships with line construction contractors year-round and fully participate in Regional utility mutual assistance.

Second - Intense hurricanes, category 3/4/5, and storm surge have the potential for unprecedented damage. One way we mitigate this risk is by maintaining strong relationships with Community and County emergency response leaders through EOC contacts. Two-way communication of damage as early as possible allows Regional priorities to be adjusted.

In conclusion:

Progress Energy's organization and T&D systems are prepared for the 2012 hurricane season.

- The Transmission & Distribution system that performed well in previous major weather events has been inspected, maintained, and hardened.
- Our internal organization has been drilled, and relationships strengthened with Community emergency response leaders.
- And critical material and resources have been secured or committed.

As a 7 time EEI (Edison Electric Institute) emergency response award winner, Progress Energy has a track record of high performance. The most recent award came in March 2009 for off-system support to Entergy Texas, Center Point Energy, and AEP Ohio following Hurricane Ike. It was the Company's largest off-system deployment involving over 900 employees and contractors. Progress Energy's off-system response, along with other Florida Utilities here today, strengthens an already healthy standing in the mutual assistance community for when help is needed here in Florida.

This concludes my prepared remarks. Commissioners, thank you for your attention. At this time I will answer any questions you have.

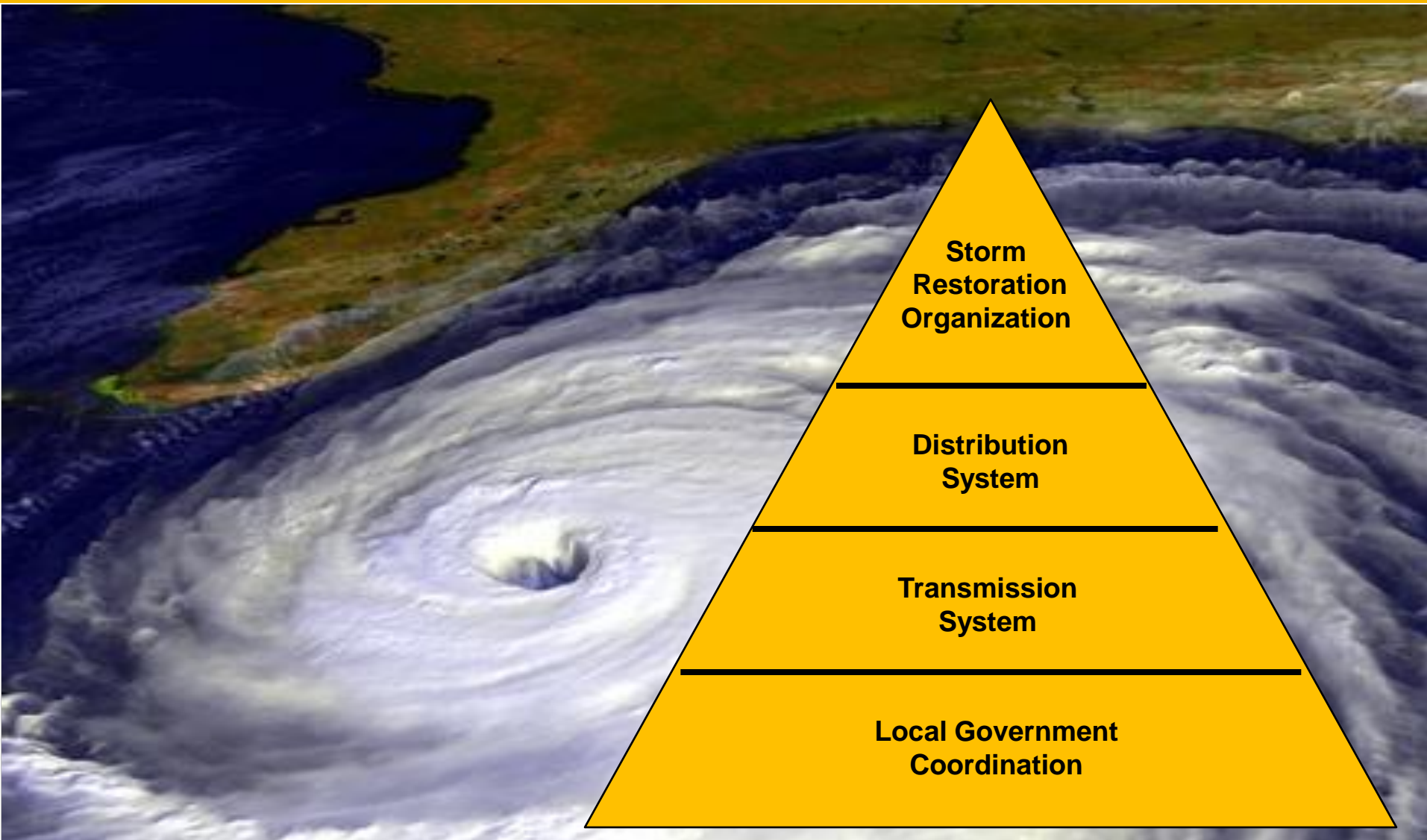
# **Progress Energy Florida 2012 Hurricane Preparedness**

## **Florida PSC Hurricane Preparedness Meeting**

**May 9, 2012**



# Hurricane Preparedness

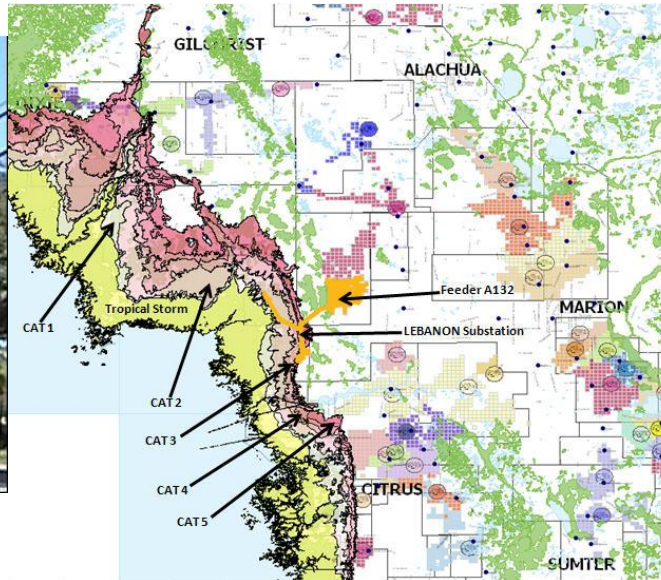


**Progress Energy**

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# Distribution System Readiness

- Pole Inspections
- System Maintenance
- Vegetation Management
- 10-Point Ongoing Storm Preparedness Plan
- Storm Hardening Rule



**Progress Energy**

# Transmission System Readiness

- Pole Inspections
- System Maintenance
- Vegetation Management
- 10-Point Ongoing Storm Preparedness Plan



**Progress Energy**



# Storm Restoration Organization Readiness

- Storm Plan Continuous Improvement
- Annual Pre-Season Storm Drill
- Internal Resources Secured
- External Resources Committed

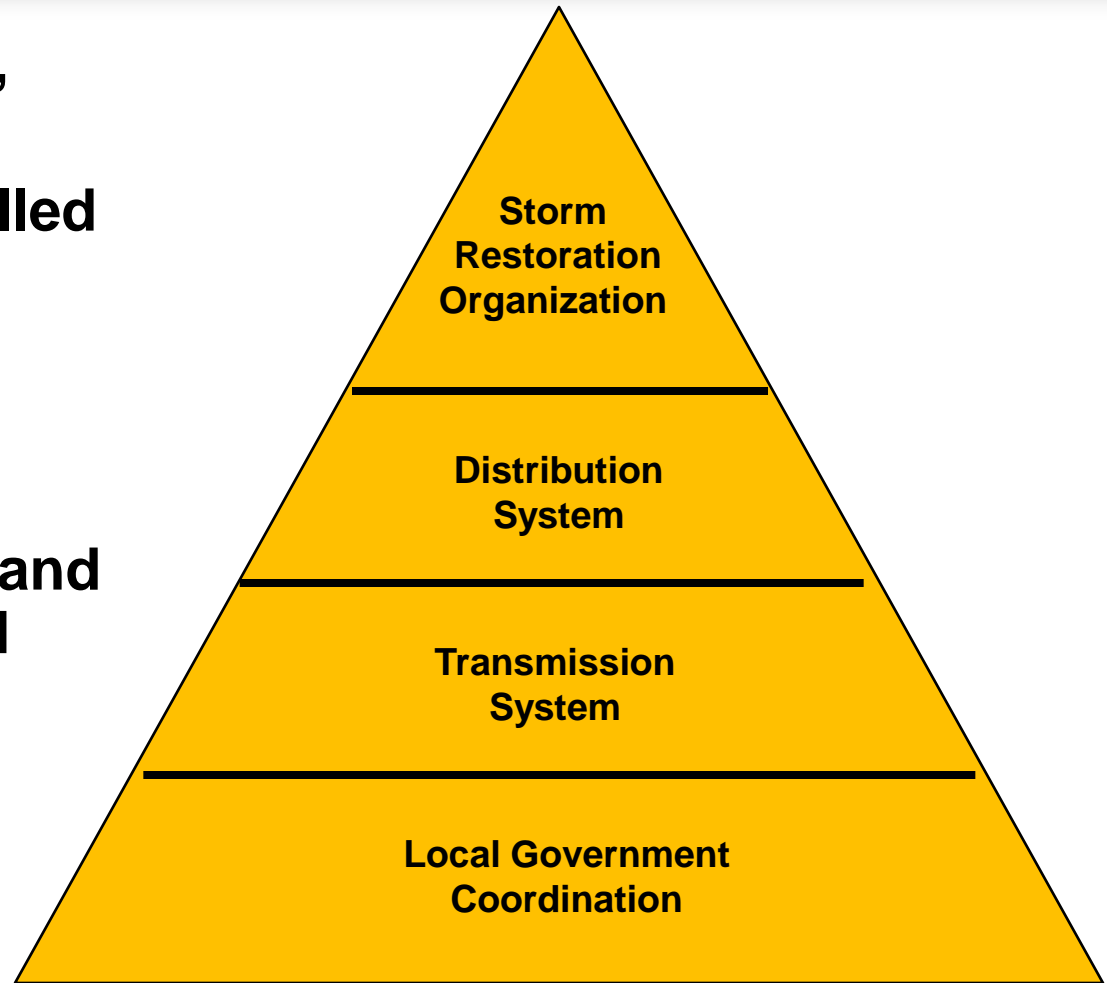


# Local Government Coordination

- **Cross-Functional Coordination Team**
- **Structured Information Sharing Before, During, and After Hurricane**
- **Electronic Outage Data to County EOC's**
- **“Know Where You Grow” Tree Program**
- **Public Expos**

# Hurricane Season Preparedness Conclusion

- **T&D Systems Checked, Maintained**
- **Storm Organization Drilled and Prepared**
- **Internal and External Resources Secured or Committed**
- **Response Plan Tested and Continuously Improved**



# ATTACHEMENT O





March 1, 2013

**VIA ELECTRONIC MAIL**

Mr. Tom Ballinger, Director  
Division of Engineering  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

*Re: 2012 Annual Wood Pole Inspection Report; Undocketed*

Dear Mr. Ballinger:

Pursuant to Order Nos. PSC-06-0144-PAA-EI and PSC-07-0918-PAA-PU, enclosed is Progress Energy Florida, Inc.'s ("PEF") Annual Wood Pole Inspection Report for CY 2012. This information is also contained in PEF's 2012 Annual Service Reliability Report dated March 1, 2013.

Please call me at (727) 820-4692 should you have any questions.

Sincerely,

  
Dianne M. Triplett

DMT/lmr  
Enclosures

**PROGRESS ENERGY FLORIDA'S  
2012 ANNUAL WOOD POLE INSPECTION REPORT**

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- I. In Order No. PSC-06-0144-PAA-EI, the Commission stated that on an annual basis, investor-owned electric utilities shall file wood pole inspection reports containing the following information:
- A review of the methods the company used to determine NESC compliance for strength and structural integrity of the wood poles included in the previous year's annual inspections, taking into account pole loadings, where required;
  - An explanation of the inspected poles selection criteria, including, among other things, geographic location and the rationale for including each such selection criterion; and
  - Summary data and results of the company's previous year's wood pole inspections, addressing the strength, structural integrity, and loading requirements of the NESC.

In compliance with Order No. PSC-06-0144-PAA-EI, PEF submits the following information for calendar year 2012:

**METHODS USED**

Please see Attachment A – Column J. For a more detailed explanation of the methods used, please refer to PEF's Wood Pole Inspection Plan filed on April 2, 2012.

**SELECTION CRITERIA**

See comments on Attachment A.

**SUMMARY DATA AND RESULTS**

Please see Attachment A.

- II. In addition, Order No. PSC-07-0918-PAA-PU issued November 14, 2007, requires all investor-owned utilities ("IOU's") to report the following additional information in their respective annual wood pole inspection reports:
- The number of poles failing inspection and designated for replacement,

- The number of replacements made to date,
- The plan for replacement of the remaining poles that failed inspection,
- The projected number of poles to be inspected in the next annual inspection cycle, and
- The cumulative number and percentage of poles inspected in the eight-year cycle.

All of this information is included in Attachment A.

### **CCA POLE SAMPLING REPORT**

Pursuant to Order No. PSC-08-0615-PAA-EI issued September 23, 2008 in Docket No. 080219-EI, the Commission approved deviations from the sounding and boring excavation requirements of Order No. 06-0144-PAA-EI with regard to CCA wood poles less than 16 years old. On Pages 3 and 4 of Order No. PSC-08-0615-PAA-EI, it states:

*“ORDERED that, consistent with the deviation granted to Gulf Power Company in Order No. PSC-07-0078-PAA-EU, Progress Energy Florida, Inc., Florida Power & Light Company, and Tampa Electric Company shall be required to sound and selectively bore all CCA poles under the age of 16 years, but shall not be required to perform full excavation on these poles. It is further*

*ORDERED that Progress Energy Florida, Inc., Florida Power & Light Company, and Tampa Electric Company shall also be required to perform full excavation sampling to validate their inspection method. It is further*

*ORDERED that the results of the utilities’ sampling shall be filed in their annual distribution reliability reports.”*

### **2012 CCA POLE SAMPLING RESULTS**

Please see Attachment B.





[illegible]

**Progress Energy Florida**  
**CCA Pole Sampling Results (Less than 16 Years of Age)**  
**(Reporting Year 2012)**

[illegible]

Attachment P - 2012 Distribution Pole Inspection data – CD

Attachment Q - 2012\_FPSC\_PoleSoundBoreInspections (TRX),  
2012\_FPSC\_PoleVisualInspections (TRX), 2012\_FPSC\_StructureVisualInspections (TRX) –  
CD



# **ATTACHEMENT R**

## Ongoing Storm Preparedness Plan

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### **Purpose and Intent of the Plan:**

To implement Progress Energy Florida's ("PEF") Ongoing Storm Preparedness Plan (the "Plan") that complies with FPSC Order No. PSC-06-0351-PAA-EI issued April 25, 2006 (the "Order"). The Plan addresses the specific ten-points that the Florida Public Service Commission (the "Commission") identified in the Order.

The Plan includes the following specific sub-plans:

- Vegetation Management Cycle for Distribution Circuits.
- Audit of Joint Use Attachment Agreements.
- Transmission Structure Inspection Program.
- Hardening of Existing Transmission Structures.
- Transmission and Distribution Geographic Information System.
- Post-Storm Data Collection and Forensic Analysis.
- Collection of Outage Data Differentiating Between the Reliability Performance of Overhead and Underground Systems.
- Increased Utility Coordination With Local Governments.
- Collaborative Research on Effects of Hurricane Winds and Storm Surge.
- Natural Disaster Preparedness and Recovery Program.

These ten sub-plans are outlined and described below. PEF has already implemented several of the sub-plans. All of these sub-plans will be evaluated on an ongoing basis to address, among other things, data and data trends, new information, external factors, and cost effectiveness. All cost figures provided in this Plan are PEF's best estimates based on available information and data and are subject to revision and change as circumstances may dictate or as more definitive information becomes available.

### **1) Vegetation Management Cycle for Distribution Circuits**

PEF recommends a fully integrated vegetation management ("IVM") program. The IVM program consists of at least the following subprograms: routine maintenance "trimming," herbicide applications, vine removal, customer request work "tickets," and right-of-way floor brush "mowing." The IVM program incorporates a combination of both cycle based maintenance and reliability driven prioritization of work. Actual spending versus initial budget can vary during any particular year based on a number of factors which may include timing, changes in priorities within the program, and unforeseen events such as major storms and other factors.

Based on these considerations, PEF has revised its vegetation management contracts to add items such as:

- Cutting brush within an eight foot radius of all device poles;

## Ongoing Storm Preparedness Plan

- To the extent practical and reasonably feasible, felling “dead danger trees” within 25 feet of the closest conductor that have a high likelihood of falling on the conductors; and
- Cutting of underbrush instead of topping it.

These items have been added to help address some of the emerging issues in both the preventable and non-preventable tree-caused outage categories.

In general, the main objectives are to optimize the IVM program cost against reliability and storm performance objectives. Some of the main program objectives are:

- Customer and employee safety;
- Tree caused outage minimization, with the objective to reduce the number of tree caused outages, particularly in the “preventable” category;
- Effective cost management; and
- Customer satisfaction, with the goal to provide the customer top quartile service.

As part of the IVM program, PEF has implemented a comprehensive feeder prioritization model to help ensure that tree caused outages are minimized by focusing on the feeders that rate high in the model. Prioritization ranking factors are based on past feeder performance and probable future performance. Some of the criteria used in feeder prioritization include the number of customers per mile, the number of tree caused outages in prior years, outages per mile, the percentage of outages on backbone feeders, the percentage of total tree outages categorized as preventable (i.e., outages caused by trees within PEF rights-of-way), and total tree customer minutes of interruption (“CMI”). In implementing this prioritized process, PEF follows the ANSI 300 standard for pruning and utilizes the “Pruning Trees Near Electric Utility Lines” by Dr. Alex L. Shigo.

Generally, PEF attempts to maintain an average trimming cycle of three years. Although PEF works toward a benchmark goal of a three-year weighted average system maintenance cycle, it balances this goal against overall system reliability, customer impact, and cost effectiveness in determining its ultimate trim cycles. In some instances, PEF may defer maintenance on some feeders without significantly impacting reliability while accelerating maintenance on other feeders that are experiencing more significant issues than others. This approach has resulted in a significant improvement in system reliability, as measured by SAIDI, since 2001, including an improved SAIDI related to tree caused outages.

A mandatory three-year trim cycle without regard to system reliability, customer impact, and cost-effectiveness would not benefit PEF’s customers when compared to a focused and targeted plan such as PEF’s IVM program. Additionally, in recent years, PEF has experienced availability challenges within the tree trimming labor force in Florida. A non-targeted, mandatory three-year trim cycle would adversely impact all electric utilities within the state by forcing them to compete for an already scarce resource. Such demand could be expected to inflate costs for all utilities. Further, a mandatory, non-targeted three-year cycle would not provide the flexibility that PEF can currently leverage to address tree conditions that can vary significantly depending a number of variables, most significantly weather conditions. PEF

## Ongoing Storm Preparedness Plan

estimates that a mandatory three-year cycle would immediately increase costs by approximately \$7M in the first year of its implementation and could increase PEF's overall budget needs at a conservative rate of three percent (3%) per year. PEF does not endorse this approach. Rather, PEF can more effectively manage tree resources while providing the maximum benefit to our customers by utilizing PEF's IVM program.

### **2) Audit of Joint Use Attachment Agreements.**

PEF currently has approximately 700,000 joint use attachments on distribution poles and approximately 5,000 joint use attachments on transmission poles. While the majority of these attachments are on wood poles, approximately 15% of the distribution joint use attachments are on concrete or metal structures and approximately 25% of the transmission joint use attachments are on concrete or metal poles. The information provided below outlines PEF's plan to gather information on "non-wood" existing joint use poles over an average 8-year inspection cycle as outlined in Order No. PCS-06-0144-PAA-EI.

PEF plans to inspect all PEF distribution poles (regardless of pole type) with joint use attachments on the 8 year audit cycle outlined in Order No. PCS-06-0144-PAA-EI. These audits will start at the sub-station where the feeder originates. For each group of poles in a tangent line, the pole that has the most visible loading, line angle, and longest or uneven span length will be selected to be modeled for wind loading analysis. Each pole modeled will be field inspected. The attachment heights of all electric and communication cables and equipment will be collected. The pole age, pole type, pole number, pole size / class, span lengths of cables and wires, and the size of all cables and wires on all sides of the pole will be collected.

The selected pole's information will then be loaded into a software program. The pole information will be analyzed and modeled under the NESC Light District settings of 9psf, no ice, 30° F, at 60 MPH winds to determine current loading percentages. If that one pole fails, the next worst case pole in that group of tangent poles will be analyzed as well. Each pole analyzed will determine the existing pole loading of all electric and communication attachments on that pole. If the existing analysis determines that the pole is overloaded, a work order will be issued to replace the pole with a larger class pole. Should the original pole analyzed meet the NESC loading requirements, all similar poles in that tangent line of poles will be noted as structurally sound and entered into the database as "PASSED" structural analysis. The results of the analysis and all communication attachments will be entered into the FRAMME system. Reporting from the FRAMME system will indicate the date and results of the analysis. Poles rated at 100% or lower will be designated as "PASSED." Poles that are analyzed and determined to be more than 100% loaded will be designated as "FAILED," and scheduled to be changed out. Once the pole is changed out, FRAMME will be updated to reflect the date the new pole was installed with the new loading analysis indicated.

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PEF plans to inspect all transmission poles (regardless of pole type) with joint use attachments on the 8 year audit cycle outlined in Order No. PCS-06-0144-PAA-EI and PEF's Pole Inspection Plan filed with the Commission on April 1, 2006. Audits will start at the sub-station where the transmission circuit originates. All pole information (pole size, class, type, age, pole number, cable, wire, equipment attachment heights, span lengths) including structural plan and profiles will be sent to an outside engineering firm to be modeled in PLS-CADD/LITE and PLS-POLE software for structural analysis. The firm will determine the worst case structures in a tangent line and request the structural drawings and attachment information on those selected poles. Typically, transmission poles with line angle and uneven span lengths are the poles considered for wind loading analysis.

The selected pole information will be loaded into the PLS-CADD and PLS-POLE software. Depending on the pole location per the NESC wind charts, one of the following load cases is run. **NESC Light District:** 9psf, no ice, 30° F, 60mph; **NESC Extreme:** 3 sec gust for the specific county, no ice, 60° F (Ex: Orange County is 110 mph); or **PEF Extreme** at 36psf, 75° F, wind chart mph. If that one transmission pole fails, the next worst case pole in that group of tangent poles will be analyzed as well. Each transmission pole analyzed will determine the existing pole loading of all electric and communication attachments on that pole. If the existing analysis determines the transmission pole is overloaded, a work order will be issued to replace the pole with a stronger pole. Should the original pole analyzed meet the NESC loading requirements, all similar poles in that tangent line of poles will be noted as structurally sound and entered into the database as "PASSED" structural analysis.

The results of the analysis and all communication attachments will be entered into the FRAMME system. Reporting from the FRAMME system will indicate the date and results of the analysis. Transmission poles rated at 100% or lower will be designated as "PASSED." Transmission poles that are analyzed and determined to be more than 100% loaded will be designated as "FAILED," and scheduled to be changed out. Once the transmission pole is changed out, FRAMME will be updated to reflect the date the new pole was installed with the new loading analysis indicated.

Pursuant to the requirements of FPSC Order No. PCS-06-0144-PAA-EI, PEF will file a wood pole inspection report with the Division of Economic Regulation by March 1<sup>st</sup> of each year. The report shall contain the following information:

- 1) A description of the methods used for structural analysis and pole inspection.
- 2) A description of the selection criteria that was used to determine which poles would be inspected.
- 3) A summary report of the inspection data including the following:
  - a. Number of poles inspected.
  - b. Number of poles not requiring remediation.
  - c. Number of poles requiring remedial action.

## Ongoing Storm Preparedness Plan

- d. Number of pole requiring minor follow up.
- e. Number of poles requiring a change in inspection cycle.
- f. Number of poles that were overloaded.
- g. Number of inspections planned.

In this annual report, PEF will also file the same information for “non-wood” transmission and distribution structures that have joint attachments.

In PEF’s wood pole inspection plan previously filed with the Commission under Order No. PCS-06-0144-PAA-EI, all poles, regardless of pole type, were included in the cost estimate for “Joint Use Inspection” Below is an extrapolation of “other than wood” pole audit cost for transmission and distribution poles with joint attachments.

**Estimated Cost to Analyze "Other than Wood Poles"**

<b>Cycle Year</b>	<b>500,000 Dist Poles in System with JU (15.4%)</b>	<b>10% of Dist Poles Analyzed</b>	<b>Cost per Dist Pole to Analyze</b>	<b>2,500 Trans Poles in System with JU (25%)</b>	<b>30% of Trans Poles Analyzed</b>	<b>Cost per Trans Pole to Analyze</b>	<b>Annual cost to Analyze “Other than Wood” Poles</b>
1	9,625	963	\$70.00	78	23	\$450.00	\$77,940.00

### **3) Transmission Structure Inspection Program.**

Pursuant to FPSC Order No. PSC-06-0144-PAA-EI, PEF filed a wood pole inspection plan for its wooden transmission assets with the FPSC on April 1, 2006. In conjunction with PEF’s wood pole inspection plan, PEF will conduct other Transmission Line assessments. These assessments will primarily include Transmission Line Aerial Inspections and Transmission Line Ground Inspections, as well as Transmission substation inspections.

- (i). Aerial Patrols

Aerial patrols will utilize helicopter surveys of the transmission system on average three times per year to identify potential problems and needed corrective actions. Patrols will be conducted with qualified Line and Forestry personnel to look for and document conditions on the following items:

## Ongoing Storm Preparedness Plan

Guys	Braces	Conductors	Substation Equipment
Aerial Markers	Poles	Crossarms	Line Traps
Arresters	OHGW & OPGW	Encroachments	ROW Condition
Insulators	Splices/Dampers	Line Sect. Switches	Vegetation Issues

The aerial patrols will inspect the condition of 69 - 500 kV voltage class transmission lines and associated hardware/equipment. These patrols will be used to aid the Transmission Line Maintenance Crew in scheduling and planning preventive/corrective maintenance work.

(ii). Transmission Line Ground Inspections

PEF will perform ground patrols to inspect transmission system line assets to allow for the planning, scheduling, and prioritization of corrective and preventative maintenance work. These patrols will assess the overall condition of the assets including insulators, connections, grounding, and signs, as well as an assessment of pole integrity. Each transmission line shall have a ground patrol conducted once every 5 years. The primary goal of a ground patrol is to inspect transmission line structures and associated hardware on a routine basis with the purpose of finding and documenting any required material repairs or replacements.

(iii) Structural Integrity Evaluation

The joint use inspector will note and record the type and location of non-native utility pole attachments to the pole or structure. This information will be used by the Joint Use Department to perform a loading analysis, where necessary, of the pole or structure. Specific information on this process is contained in the Joint Use section of this Plan.

(iv). Transmission Substation Inspections

PEF will perform monthly inspections of Transmission – Transmission Substations, Transmission – Distribution Substations and Generation Plant Substations. These inspections will consist of a visual analysis of Substation Assets and documentation of operation information. This visual inspection and operation information will be used to develop actions to correct any discrepancies and to schedule preventative maintenance.

(v). Records and Reporting

An asset inspection report will be filed with the Division of Economic Regulation by March 1<sup>st</sup> of each year. The report shall contain the following information:

- 1) A description of the methods used for analysis and inspection;
- 2) A description of the selection criteria that was used to determine which assets would be inspected; and



## Ongoing Storm Preparedness Plan

- 3) A summary report of the inspection data;

### Transmission Line Inspections Cost Estimates

O&M Costs	10 Year Total Cost
Aerial Patrols	\$3,000,000
Ground Patrols & Misc. Repairs	24,000,000
Ground Line Inspections	\$2,400,000
<b>Total O&amp;M Cost</b>	<b>\$29,400,000</b>

### **4) Hardening of Existing Transmission Structures.**

PEF currently has over 45,000 transmission structures with approximately 4800 miles of transmission lines in the Florida Grid. Approximately 34,000 structures (or 75%) are currently supported with wood poles. PEF currently averages approximately 500 wood pole to concrete or steel pole maintenance change outs per year. Additionally, PEF currently relocates approximately 100 poles per year due to developer requests or highway improvements, and these poles are replaced with concrete or steel poles. Furthermore, PEF will also be performing system upgrades due to system growth on several lines over the next 10 years. This, on average, will result in approximately 250-350 wooden structures per year being changed out and replaced with concrete or steel poles over the next 10 years.

PEF also estimates that it will be adding 300-400 structures per year over the next 10 years due to system expansion and growth. All new structures will be constructed with either concrete or steel and will be designed to meet or exceed current NESC Code requirements. Based upon these projections of new additions and pole change, this should reduce the percentage of wood structures on the PEF system from 75% to less than 50 % during a 10 year period. The following table provides PEF's estimated costs:

Costs	Changeouts or new Poles /Year	Cost/Year	Total Changeouts or new Poles/10 years	Total 10 Year Costs (Present Value)
Maintenance Change outs	500	\$7.0 Million	5000	\$70 Million
DOT Relocations	100	\$7.0 Million	1000	\$70 Million
Line Upgrades and Additions	750	\$ 50.0 Million	7500	\$500 Million
Increased GL Inspection	200	\$2.8 Million	2000	\$ 28 Million
<b>Total</b>	<b>1550</b>	<b>\$66.8 Million</b>	<b>15500</b>	<b>\$668 Million</b>

## Ongoing Storm Preparedness Plan

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### **5) Transmission and Distribution Geographic Information System.**

#### Distribution

With respect to Distribution, PEF's ultimate goal for collecting and maintaining asset and performance data is to first create an environment that contains all the elements referenced by the Commission in Order No. PSC-06-0351-PAA-EI (i.e., GIS capable of locating, mapping, and keeping inspection, vintage, and performance data on all transmission and distribution assets). To achieve this goal, additional capital and O&M funding is necessary to enhance existing systems.

Currently, PEF has a GIS system that provides an operational view of our assets. In other words, PEF's current GIS system has information that is location specific, not asset specific. To implement an enhanced GIS, PEF would need to change its current GIS system from location driven to asset driven. This would enable PEF to collect data from many sources including operations, inspections, performance systems, and other sources, which would provide PEF the ability to look for trends in performance of individual assets as well as trends in the aggregate of its assets. To fully implement this strategy, PEF Distribution would need to invest in several systems and perform additional field inspections and audits on its assets. The estimated costs are set forth below.

#### **Systems:**

##### Computer Maintenance Management System

Estimated Costs - \$1M

One of the first systems that would need to be developed would be a Computer Maintenance Management System. This system would be responsible for collecting performance and historical data on PEF's assets. This system would be linked to PEF's GIS.

##### Operational Datamart

Estimated costs - \$950k

This system would be responsible for pulling information out of the GIS and the CMMS systems to provide reporting capabilities like asset analysis, trends, and early identification of potential asset failures. This provides decision support tools as well as interfaces to those required systems like GIS, CMMS, and CDMS.

##### Asset Management - Corporate Document Management Systems (CDMS)

Estimated Costs - \$250k

The implementation of a new corporate document management system would support archival of and access to all documents and drawings related to distribution assets and the aggregation of those assets to a

## Ongoing Storm Preparedness Plan

system. This would likely facilitate the referencing of standards in the past as well as current design standards.

Facility Baseline Inspection  
Estimated Costs - \$6.6M

PEF would further need to execute a comprehensive inspection of its distribution facilities to gather additional information and data for its new GIS system. This would be a critical component to establish an informational baseline for PEF facilities and assets. This baseline then would be used in conjunction with the CMMS to store the results of the inspections as well as update the GIS with any net new removals or additions to the Distribution facilities.

Total One time Costs -  $1M + 950k + 250k + 6.6M = \$8.8M$

### Transmission

PEF Transmission has a functioning GIS system (MapInfo) that is linked to PEF's work management system. This system contains information on the location of the pole, the type of pole, and it contains a photo image of the pole or structure. Presently, this system does not contain the maintenance history of the facility. Over the next 6 years, PEF plans to populate the system with maintenance data that will be captured in PEF's Transmission Line Inspection Plan. The data would include:

1. Date Inspected;
2. Type of Inspection;
3. Conditional Assessment of the Transmission facility;
4. Status of Remediation/Repair Work Order.

Estimated Costs	Total 10-Yr Cost
Inspection and Data Entry	\$ 2,000,000
Computer system upgrades	\$1,000,000

## **6) Post-Storm Data Collection and Forensic Analysis.**

### Distribution

The purpose of forensic assessment is to provide data on causal modes for distribution pole and structure damage due to major storms. Four functional roles have been defined to support the collection of forensic

## Ongoing Storm Preparedness Plan

data during major storm response; System Forensic Assessment Coordinator, Regional Forensic Lead, Forensic Assessor, and Forensic Support.

The following is a list of key activities identified for each functional role defined in support of the Forensic Assessment process during major storm response:

System Forensic Assessment Coordinator- This position is responsible for the coordination of collecting and collating forensic data of distribution pole and structure damage due to a major storm. Key activities may include:

- Monitor path of approaching storm and coordinate a pre-storm conference call with Regional Forensic Leads at least 48 hours prior to expected landfall.
- Facilitate and document substation and feeder assignments among Regional Forensic Leads.
- Coordinate end-of-day conference calls with Regional Forensic Leads to determine daily progress and communicate system forensic assignments for the following day.
- Develop and deliver post-storm System Forensic Summary Report to the Damage Assessment Manager within 2 weeks after storm restoration activity has been completed.

Regional Forensic Lead- This position is responsible for the execution of a forensic review of the assigned region and for coordinating the field activities of the Forensic Assessors and Forensic Support functions. Key activities may include:

- Participate in pre-storm conference call with System Forensic Coordinator at least 48 hours prior to expected landfall to determine high-priority substations for Forensic Assessment and additional calls, as needed.
- Communicate team assignments and expected initial reporting time/location to Forensic Assessor and Forensic Support team members 48 hours in advance of expected landfall.
- Secure and assign vehicles for all Forensic Assessment teams within the region.
- Determine and communicate daily substation and feeder assignments by team.
- Establish protocols and timelines with Forensic Assessment teams within the region for communicating daily start, stop, and safety check-in times and notify system Damage Assessment Manager and System Forensic Coordinator if communication is not established with teams as expected.
- Participate in end-of-day conference calls with System Forensic Coordinator and other Regional Forensic Leads to determine the system-wide status of Forensic Assessment and assign assessment locations for the following day.
- Provide complete Region Substation Forensic Summary Reports to System Forensic Coordinator within 1 week after storm restoration activity has been completed.

## Ongoing Storm Preparedness Plan

Forensic Assessor- This position is responsible for the resources necessary to conduct the Forensic Assessment in the field, including the direct supervision of an assigned Forensic Support team member. Key activities may include:

- Be proficient in the data collection process and procedure necessary to conduct Forensic Assessment.
- Prepare field kit upon initial notification of assignment from Regional Forensic Lead.
- Confirm daily Forensic Assessment assignment with Regional Forensic Lead and confirm protocols and timelines with for communicating daily start, stop, and safety check-in times.
- Initiate contact with assigned Forensic Support team member and provide just-in-time refresher of expectations as required.
- Conduct pre-trip inspection with Forensic Support prior to departing local Operation Center to ensure all materials and resources are available and that the vehicle is in safe working order.
- Conduct pre-job briefing before each inspection.
- Conduct field Forensic Assessment of assigned substations and/or feeders and collect required data for each pole identified as damaged or in need of repair.
- Report daily observations and status update to Regional Forensic Lead as assigned.
- Complete and submit hardcopy checklist to Regional Forensic Lead for each pole identified as damaged or in need of repair no later than 2 days after restoration activity has been completed.

Forensic Support- This position will provide field support to the Forensic Assessor in the collection of required data during Forensic Assessment in the field. Key activities may include:

- Participating in pre-job briefings.
- Safe operation of assigned passenger vehicle.
- Cataloguing time, location, and other required data for each pole identified as damaged or in need of repair.
- Assisting in the preparation of summary reports for use by the Regional Forensic Lead.

PEF has implemented the Forensic Assessment process for the upcoming 2006 storm season.

### Transmission

#### Field Data Collection

PEF Transmission will establish a contract with an engineering/survey firm that will require the firm to provide resources immediately after a storm event. This contractor will collect detailed post storm data necessary to perform storm damage and forensic analysis. This data will include:

1. Photographs of the failed facility;
2. Conditional assessment of the failed facility;

## Ongoing Storm Preparedness Plan

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3. Sample collection of any failed components; and
4. Date stamps, name plate data.

### Maintenance/GIS Data

The balance of needed data will be collected from the GIS data base and will include:

1. Location of the facility (GPS coordinates);
2. Type and design of the facility;
3. Facility vintage; and
4. Maintenance history of facility.

### Data Reduction

The above data will be provided to a consultant. Using the storm data that was collected from the field collection process, data contained in the GIS data base, and available weather data, a forensic analysis will be performed in order to correlate storm intensity, design standards, maintenance history, geographic locations, materials, facility types, and vintage. From this analysis, the consultant will make recommendations storm hardening improvements.

### Estimated Costs

Estimated costs will be based on the amount of storm damage that occurs as a result of a single storm in one year. The estimated costs listed below are based upon the illustrative assumption of 100 transmission structures that are damaged and require analysis.

Costs		Total 10-Yr Cost
	Field Data Collection	\$5 Million
	GIS Data Collection	\$2 Million
	Data Reduction and Recommendations	\$2 Million
	Total Cost	\$9 Million

## **7) Collection of Outage Data Differentiating Between the Reliability Performance of Overhead and Underground Systems.**

PEF will collect information to determine the percentage of storm caused outages on overhead systems and underground systems. Some assumptions are required when assessing the performance of overhead

## Ongoing Storm Preparedness Plan

systems versus underground systems. For example, underground systems are typically protected by overhead fuses. PEF will provide for these factors in its analysis.

PEF has an internal hierarchy in its Outage Management System (OMS) that models how all of its facilities are connected to each other. This information provides the connection to the feeder breaker down to the individual transformer. PEF's Customer Service System (CSS) captures which customer is tied to what individual transformer. PEF's Geographical Information System (GIS) provides several sets of data and information points regarding PEF's assets. PEF will use these systems to help analyze the performance of the following types of assets:

- Breakers
- Electronic Reclosers
- Fuses
- Hydraulic Reclosers
- Interrupters
- Motor Operated Switches
- OH Conductors
- OH Transformers
- Primary Meters
- Switch Gear Fuses
- Sectionalizers
- Services
- Switches
- Terminal Pole Fuses
- Under Ground Conductors
- Under Ground Transformers

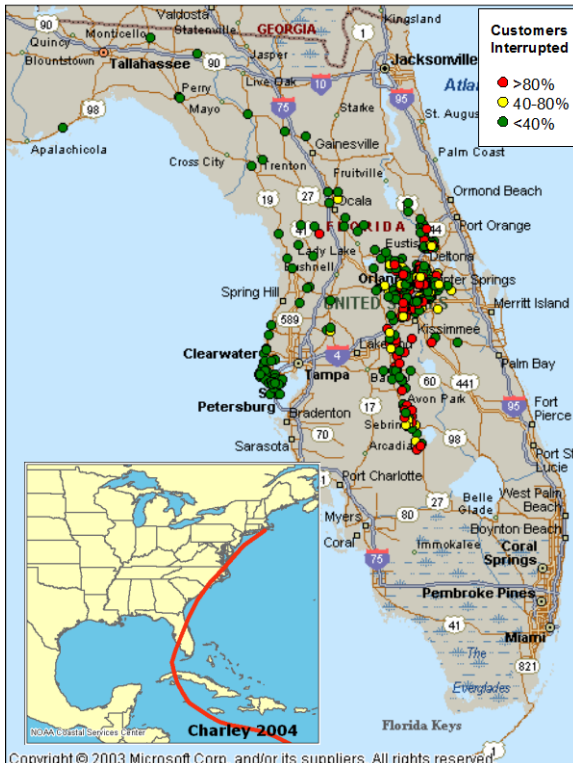
As part of this process, the location of each feeder circuit point is determined by approximating the geographic midpoint of each circuit. Outages experienced as a result of a named storm will be extracted from system data. The outages will then be grouped by feeder circuit ID and by outage type, where outage type is either overhead or underground. The number of customers interrupted by an overhead device will then be summed by feeder circuit ID and the number of customers interrupted by an underground device will be summed by feeder circuit ID. A single feeder circuit may have overhead and underground outages, so approximations will be made in those circumstances.

Once this information is collected, the percentage of customers interrupted will be calculated by dividing the sum of customers interrupted per feeder circuit by the total customers served for that feeder circuit. This process is applied as the sum of customers interrupted by all overhead devices on a feeder circuit divided by the number of customers served by the feeder circuit and the sum of customers interrupted by all underground devices on a feeder circuit divided by the number of customers served by the feeder circuit. As a result of this process, PEF will produce graphic representations of performance such as those depicted below:

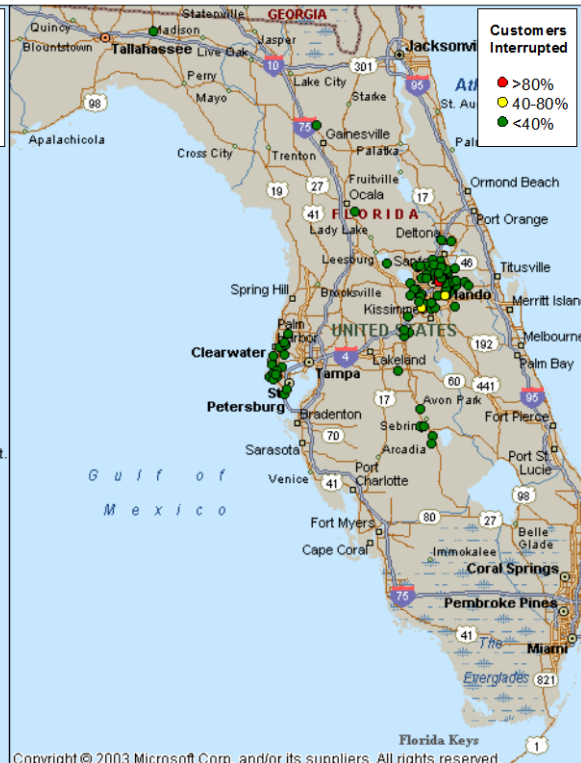


# Ongoing Storm Preparedness Plan

## OH Construction Outage Severity



## UG Construction Outage Severity



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PEF will also collect available performance information as apart of the storm restoration process via servicemen in the field, such as:

Restore time;  
Cause code;  
Observations and comments;  
Failed device name;  
Failed device size;  
Failed device type;  
Failed device phase; and  
Failed device location.

The implementation of a new GIS system discussed above would enhance PEF's ability to collect data relevant to asset performance, and PEF would use this data to analyze and compare the performance of its overhead and underground systems.

### **8) Increased Utility Coordination With Local Governments.**

This part of the Plan addresses increased coordination with local governments to enhance PEF's ability to prepare for and respond to storms and other severe weather events. PEF's goal is to provide excellent customer service and collaboration with local governments before, during, and after emergencies through organization, commitment, strong relationships, the provision of resources, and communication and feedback mechanisms. Through a collaborative partnership with local governments, PEF can take advantage of the mutual interest in excellent response to communities through year-round dialogue and planning. Specifically, PEF will focus on the following in implementing this plan in conjunction with local governments:

- Identify opportunities throughout the year to improve preparedness on both the part of the utility and the public taking advantage of government's local knowledge and existing organization.
- Develop enhanced organization and planning to improve readiness.
- Educate the public on proper storm preparation and restoration actions.
- Provide local governments with the support needed to facilitate the coordination of outage restoration in a safe and efficient manner.
- Provide local governments with ongoing information and updates in advance of, during and after storm events to assist them with their local storm preparation and restoration efforts including informing the public.
- Assist in the resolution of local governmental issues and concerns related to storm and emergency situations.

## Ongoing Storm Preparedness Plan

In order to meet the requirements of FPSC Order No. PSC-06-0351-PAA-EI, PEF has established an internal team focused on local governmental coordination activities. These activities include dedicated resources, training, continuous coordination with government, storm preparation, storm restoration and an EOC program.

### **a) Staffing and Training**

A cross-functional internal team has been established utilizing personnel from numerous areas including community relations, regulatory affairs, and account management. The role of the team will be to develop and implement initiatives focused on governmental coordination and to participate in both internal and external storm preparation planning activities.

- Staffing – The governmental coordination team consists of approximately 70 employees throughout PEF’s service territory. Each member is assigned to a specific role. Job descriptions have been developed for each role. These will be updated annually to meet current needs and requirements. Below are the roles for this team and the approximate number of employees in each role.

#### **Government Coordination Roles**

**Storm Coordinator (1)**

**State EOC Coordinator (1)**

**Community Relations Manager – CRM (6)**

**Manager, CIG Accounts (1)**

**Back Up CRM/Support (23)**

**EOC Representative (28)**

**Operations Center Liaison (10)**

Members of the team are responsible for familiarizing themselves with their job description, participating in annual training and general readiness for storm duty as required. In addition, certain members will work with assigned communities throughout the year to identify opportunities for enhanced coordination and support local community storm preparation activities.

Annually a system-wide internal storm drill will be conducted in which members of the team will participate. The State EOC Coordinator will work with state agencies to coordinate the company’s participation in the annual state storm drill.

Staffing scenarios are created to simulate different storm impacts and staffing assignments to support each impact scenario. Personnel are flexible to shift to positions throughout the state as needed. This supports initiatives to coordinate with local government including emergency management organizations throughout the year (i.e. community storm drill activities, updating EOC infrastructure restoration priority account lists and EOC contact lists).

Training is been developed for all team members. Training will be conducted on an annual basis in multiple locations throughout the system and will include the following elements:

## Ongoing Storm Preparedness Plan

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### **Overview of government coordination organization**

#### **Storm assignments and roles**

#### **Job requirements**

#### **Material and resource requirements**

#### **EOC crew management module**

#### **NIMS training**

In addition to classroom training, an internal electronic site is being developed to house information and resources that are accessible by all team members before, during, and after storm events. This site will include, but not be limited to, the information listed below.

Training Presentations and Materials

Staffing Priority List

Maps, Location/Contact Information

Government/Agency Contact Information

Calendar of Activities

Storm Job Descriptions

Team Member Lists/Contact Info

Territorial Maps

Storm Staffing Scenarios

Storm Organization Chart

### **b) On Going Coordination**

Throughout the year, company representatives will work with local government officials and agency representatives to enhance the flow of information and to identify coordination opportunities.

Coordination opportunities fall into several categories – storm related activities, vegetation management programs, undergrounding programs, and other coordination efforts.

- **Storm Related Activities**

Representatives from PEF will participate in local storm workshops and expositions throughout PEF's service territory. In many cases, PEF will act as presenters or co-sponsor for these events. These events will occur in each region of PEF's service territory. In addition, PEF will hold workshops and other coordination meetings with local officials and agencies to educate on restoration programs, develop coordination plans, exchange feedback and generally enhance communication between organizations. Some key events scheduled for 2006 are listed below.

- PEF is taking steps to enhance public information through the media. Among a number of activities, PEF will be participating as a panelist in hurricane preparedness town hall-type meetings forums in the Tampa and Orlando television markets. The programs are designed to educate the public and will include representatives from local government emergency management, the Red Cross, and FEMA.

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- PEF is scheduled to participate in EOC Coordination activities in most counties served including events and briefings in the following counties:

Pinellas County  
Orange County  
Columbia County  
Gulf County  
Highlands County  
Pasco County  
Volusia County

- PEF is scheduled to participate in State-sponsored events:  
Governor's Hurricane Conference  
State Storm Drill
- PEF Sponsored events:  
South Coastal Community Storm Meeting and Expo (Pinellas and Pasco Counties)  
Progress Energy's 911 First Responders Storm and Safety Expo (Winter Garden Operation Center – covering Orange, Osceola, Seminole, Lake, Volusia, Gilchrist, Sumter and Polk)  
PEF is incorporating into its SCORE workshops for commercial, industrial and governmental customers a segment on hurricane preparedness and PEF restoration processes.

- Vegetation management coordination program

It has become essential to implement programs designed to improve coordination with communities regarding vegetation management. Not only will these activities support efforts to improve overall reliability improvement programs, but they will also support storm preparation and restoration activities. PEF has completed the development of a community vegetation management education program. This program is designed to:

- Ensure that all Progress Energy customers will have received some form of vegetation management education through community outreach, events, web site information, advertising and other communication mechanisms.
- Improve relationships with local governments, offering successful vegetation programs in their communities.
- Launch a Radio/Public Service Announcement Campaign in 2006 that will reach more than 30% of the Progress Energy market.
- Distribution of information in 2006 on vegetation management that will reach more than 30% of the Progress Energy market.
- Vegetation programs and events in Progress Energy communities in Florida.

## Ongoing Storm Preparedness Plan

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- **Undergrounding Programs**

The impact of hurricanes in Florida since 2004 has renewed local government interest in burying overhead power lines. In an effort to work with communities to address this renewed interest in undergrounding their utilities, PEF is enhancing its programs in this area and has seen a marked increase in interest in the programs. PEF has ongoing undergrounding partnerships with a number of communities. Within these projects, the company acts as project manager and facilitates coordination not only with the municipality but also with other utilities (i.e., cable, TV).

**Local government underground cost recovery tariff** - PEF is in the process of revising its local government underground cost recovery tariff. This tariff allows local governments to recover the CIAC portion of the cost for underground projects through electric bills of customers within the local government's jurisdiction. The revised tariff will increase government flexibility in managing the cost of underground projects. As part of this program, the company is developing the concept of a secure external portal designed to assist governments in managing their underground projects utilizing the tariff.

- **Street lighting repair program**

PEF has implemented an improved program for customers to report street light outages to enhance the repair process. As part of the effort, we are coordinating with local government to communicate the improved process and encourage better utilization by government of improved reporting mechanisms. Communications have been sent to all city and county governments.

- **Other coordination activities**

PEF continues to develop opportunities to enhance relationships and communication with local government for improved service, reliability and restoration efforts. For example, the company plans to send out a communication to each local government within our service territory to encourage a link to the company's storm information web site be placed on the community web site.

### **c) Plan implementation during storm events**

When a major storm event occurs, the local government coordination storm plan will be executed. All team members will participate in pre-storm planning activities and receive assignments to specific regions and roles. The following is a high-level list of actions that will be performed by the team intended to provide excellent execution of community restoration activities and support of local government efforts.

- Communications with local government officials, agencies and key community leaders prior to the storm event notifying of PEF storm readiness activities and status.
- Ongoing communications to government officials, agencies and key community leaders providing updates of outage and storm restoration efforts of the company.

## Ongoing Storm Preparedness Plan

- Oversight of EOC Representatives (State) assigned to state and local EOCs.
- Provide updates and information for coordination purposes to internal leadership and operation personnel within the company.
- Obtain the Governor's Executive Order and distribute to PEF Logistics personnel for logistical purposes.
- Prepare DOT Waivers and communicate with DOT SEOC personnel (ESF 16) to expedite arrival of out-of-state crews prior to entry into the State of Florida.
- Prepare Aviation Waivers and obtain approvals from ESF 1 & ESF 3 (DOT & Public Works).
- Coordinate with PEF Storm Centers for the exchange of accurate information pertaining to restoration efforts before, during and after a major storm.
- Communicate with local officials regarding power outage data for the county as well as restoration efforts.

### **d) Emergency Operation Center (EOC) Plan**

PEF has created and will be implementing a specific program for the management of restoration activities in coordination with local government at state and county EOCs during storm events. The specific role of the EOC Representative has been created to engage with EOC management on pre-storm planning and during storm events. The company has also assigned specific personnel to represent the company and to be stationed in a number of key EOCs throughout the storm event.

The primary responsibility of the EOC Representative is to work with the EOC personnel to establish current priorities for restoration, communicate this information to appropriate operating center personnel and ensure EOC priorities are worked successfully. The EOC Representative and other team members are responsible for establishing contact with assigned EOC and to update storm restoration infrastructure priority lists prior to the beginning of the storm season.

#### **Pre-storm duties:**

- Work with local governments to update specific city/county and EOC priorities (e.g. designated hospitals, shelters, traffic lights, essential water treatment facilities and lift stations, etc.) and develop prioritized account list for each county.
- Create list of all governmental facilities in the County including responsible operating center, substation, and feeder.
- Review PEF procedures with EOC staff and establish working relationship and rules.
- Work internally with operations personnel to establish EOC priority work flow.
- Provide feeder maps or outage information for the County for use at the EOC.
- Obtain a street level utility territory map for the County.



## Ongoing Storm Preparedness Plan

- Assure a network connection that will accommodate a Progress Energy computer exists at the EOC.
- Attend scheduled meetings as the storm approaches.
- Participate in software training at EOCs.

### **Duties during major storm event:**

- Organize and report “911” type issues to Dispatch
- Advise company of the need for press briefings or public official meetings
- Attend scheduled EOC meetings
- Provide regular briefings on PE progress and deliver key communications to EOC personnel
- Communicate internally for the exchange of timely and accurate information

### **Duties after major storm:**

- Attend scheduled EOC debriefing meetings
- Responsible for “break-down” of PEF area in EOC facility

## **9) Collaborative Research on Effects of Hurricane Winds and Storm Surge.**

PEF will support a collaborative effort to conduct research and development (R&D) on the effects of hurricane winds and storm surge to the electrical system of Florida. The company also will support the leadership of the R&D effort to be facilitated through a centrally coordinated effort managed by an entity within the state that can draw from various universities and research organizations not only in Florida, but across the United States as well.

PEF believes the necessary leadership to serve as the R&D coordinator is available from the Public Utility Research Center (“PURC”) in the Warrington College of Business Administration at the University of Florida. PURC is a long-standing research organization with a strong working relationship among the investor-owned utilities, cooperatives and municipals. Therefore, PURC is well positioned to either provide or secure the resources necessary for the R&D effort envisioned by the Commission.

PURC’s position within the university community of the state and the nation allows the organization to draw from a number of resources otherwise unknown to utilities. Therefore, by coordinating the overall R&D initiative, unnecessary duplication of effort and superfluous spending should be avoided. However, if a utility has a need for a specific type of research to determine a solution to its unique problem, the utility is not hindered from engaging in independent research on its own through a local university or research organization other than PURC.

## Ongoing Storm Preparedness Plan

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### **Estimated Costs and Timeline**

PEF believes the collaborative research plan described above meets the intent of the Commission. The cost for this initiative will be determined by the extent and duration of R&D requested by the IOUs.

### **10). Natural Disaster Preparedness and Recovery Program.**

Please see Attachments A, B and C to this Plan for PEF's Preparedness and Recovery Programs.

- Attachment A – Department Storm Plans
- Attachment B – Transmission Department Corporate Storm Plan
- Attachment C – Distribution & Transmission Storm Plans - Florida

# **ATTACHEMENT S**

# Transmission Vegetation Management Program

MNT-TRMX-00176

Applies to: Transmission Operations & Planning Department – Carolinas and Florida

Keywords: maintenance; transmission – maintenance line

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## 1.0 Introduction

Progress Energy Transmission employs an Integrated Vegetation Management Program (IVMP) that combines various components to manage the growth of vegetation on the electric transmission utility right of way (ROW). Through the use of different, integrated methods, the optimum results (reliability, etc.) occur reducing the need to employ reliability-based trimming/removal and danger tree cutting.

Progress Energy Transmission utilizes easements, permits and/or company owned lands for the right of way on which the transmission lines are constructed. The routine inspection and maintenance of the right of ways (ROW) are extremely important for the safety of the public and the personnel that are responsible for the operation/maintenance of the transmission lines. Maintaining right of ways in accordance with established procedures results in a high level of transmission line reliability.

## 2.0 Program Policies, Procedures, Components and Specifications (FAC-003 R1)

### 2.1 Program Objectives

Ensure the reliability of the transmission system by minimizing vegetation related interruptions, while maintaining compliance with regulatory, environmental and safety requirements/standards.

### 2.2 Philosophy

Our philosophy is based upon employing the proper, most economical vegetation management techniques to ensure the effectiveness of our program in a wide variety of environments. This is achieved through communication, continuous learning and assessing best management practices throughout the industry.

## **2.3 Program Scope**

The visual inspection and appropriate maintenance of transmission line right of ways comprise the Transmission Vegetation Management Program.

Inspections (periodic aerial and as needed ground patrols) are performed to monitor vegetation growth, right of way contractor effectiveness and encroachments within the right of way. Maintenance activities may include any of the following: re-clearing vegetation (mechanical clearing, hand cutting and herbicide application), tree trimming/removal, danger tree cutting and encroachment licensing/removal.

All transmission lines at voltages of 200 KV and higher will maintain 100% compliance with the MNT-TRMX-00176 specifications and cycle frequencies. All transmission lines at voltages less than 200KV will utilize MNT- TRMX-00176 as a standard and apply appropriate IVM methods as required to ensure the reliability of the line.

## **2.4 Program Work Components**

All work performed shall be in accordance with ANSI, OSHA and other applicable safety requirements, laws and Progress Energy guidelines. The following describes the various components that are utilized in the Progress Energy Transmission's Integrated Vegetation Management Program.

**Right of way re-clearing** (using mechanical equipment – e.g., rotary mowers, Kershaw, Hydro-Ax, etc.) - All of the wooded sections of the right-of-way are to be re-cleared with mechanical equipment, where possible, to the full width as noted in a detail description. All undergrowth is to be cut within six (6) inches of the ground. All vines on poles and brush around poles in fields are to be cut and removed out of cropped areas. Cut all leaning trees that have been pulled into the right-of-way by storms. All brush cut from stream banks or drainage ditches must be removed from streams and ditches so as not to impede the flow of water. When run ways are cut through existing canals, the canal must be restored to original condition allowing drainage to continue as it did before our operation. Vista screens and trimmed trees are not to be cut during re-clearing operations without specific instructions from Company representative.

**Right of way re-clearing** (hand-cutting) - All of the wooded sections of the right-of-way that cannot be re-cleared with mechanical equipment are to be hand cut to the full width as noted in a detail description. All undergrowth is to be cut within six (6) inches of the ground or current water level. All vines on poles and brush around poles in fields are to be cut and removed out of cropped areas. Cut all leaning trees that have been pulled into the right-of-way by storms. All brush cut from stream banks or drainage ditches must be removed from streams and ditches so as not to impede the flow of water. Vista screens and trimmed trees are not to be cut during re-clearing operations without specific instructions from a Progress Energy representative.

**Right of way re-clearing** (herbicides) – Where appropriate, the primary method of vegetation control on transmission right of ways may be established as, or converted to, the use of herbicides. Herbicides may also be applied on a case by case basis on areas of line right of ways that cannot be effectively, or efficiently, mowed or hand-cut. The application of herbicides on Transmission ROW shall be in accordance with procedure [EVC-EDGC-00001](#) (Herbicide Usage on Rights-of-Way *Energy Delivery Carolinas only*) and all applicable TVM specifications.

**Tree removal/trimming** - All trees requiring removal/trimming should be removed or trimmed so as to obtain sufficient clearance to prevent a hazard to operations for the removal/trimming cycle. As noted in right-of-way use guidelines and many easement documents, vegetation that matures at a height of greater than 12' may not be planted in the right-of-way and, if planted without written approval, is subject to potential removal during future maintenance activities. Existing vegetation within the ROW that will reach a height of more than 12' at maturity will be evaluated for removal during maintenance by Progress Energy representatives based on line or site specific parameters, Progress Energy arboricultural practices/principles and the rights granted to Progress Energy via underlying easements, permits or other legal documents. In improved areas such as yards, landscaping etc., the property owner may be notified of the planned tree removal work via direct contact, door hangers or other methods as appropriate for the site/situation specific circumstances.

**Side-trimming** – Trees within and along the edge of the right-of-way will be targeted for removal, and trees outside of the right-of-way with growth potential within the right-of-way will be side-trimmed at a minimum (some may require removal if side-trimming is not adequate) to meet clearance requirements. These trees or limbs, due to their height and location, have the potential to make contact with, or be in close proximity to, the conductor due to reasonably expected conductor movement (i.e. conductor blowout).

**Off right of way tree cutting** – Off right of way trees are those trees located outside the defined right of way width. These trees, due to their height if they were to fall could make contact with the conductor or fall to within five feet of the outermost conductor, grow into the conductor or due to conductor blowout could make contact with the conductor. All trees cut are to be cut according to [MNT-TRMX-00193](#) (TVM: Off Right of Way Tree Cutting Guidelines).

**Danger tree cutting** – Danger trees are those trees located inside or outside the designated right of way that are in decline/diseased, have structural defects, leaning towards the right of way or are dead. These trees, due to there height if they were to fall could make contact with the conductor or fall to within five feet of the outermost conductor. These trees should be inspected and assessed thoroughly for structural integrity before climbing is performed. When the safety of the crew is at risk if the tree is climbed, alternate mechanical or other methods shall be utilized to perform the removal safely.

## **2.4.1 Program Component Frequency Targets**

The actual frequency for specific facilities may vary significantly from the target frequency based on the integrated program components that are being employed and on site/facility specific factors (such as - but not limited to: indigenous vegetation, easement/permit width and rights, construction type, voltage, IVM activities, environmental restrictions, regulatory requirements, etc.) Right of way maintenance frequency intervals for program component tasks are identified below. These frequency intervals will be used as the initial scheduling targets to determine the calendar year in which the work will be scheduled.

	<b>Task</b>	<b>PE Carolinas</b>	<b>PE Florida</b>
<b>2.4.1.1</b>	Right of Way		
	1. Re-clearing (mechanical)	36 months	48-60 months
	2. Re-clearing (hand-cutting)	36 months	48-60 months
	3. Re-clearing (herbicides)	36 months	48 months
	4. Tree removal/trimming	36 months	48-60 months
	5. Side-trimming	36-72 months	48-60 months
	6. Off-R/W Tree Cutting	As Needed*	As Needed*

\* Reliability-based danger tree cutting is performed as needed when danger trees are identified.

## **2.5 Work Specifications and Procedures**

### **2.5.1 Work Specifications**

Standards for specific work will be developed for all work practices and incorporated into contract documents for each project or work activity. These standards/specifications will incorporate ANSI-300 and ANSI-Z133 as appropriate.

### **2.5.2 Off Right-of-Way Tree Cutting**

Standards found in [MNT-TRMX-00193](#) (TVM: Off Right of Way Tree Cutting Guidelines).



### **3.0 Inspections (FAC-003 R1.1)**

Aerial patrols will be conducted in accordance with all applicable Progress Energy Safety Rules, OSHA regulations, work practices, and regulatory requirements. Patrols will be conducted with qualified Progress Energy Transmission personnel to look for and document conditions of the following: ROW/Vegetation clearances - encroachments - line equipment - substation equipment.

The general guidelines for TVM Aerial Patrol Inspections, reactive work completion and frequencies that impact Right of Way are defined in procedure [MNT-TRMX-00195](#) (TVM Program: Aerial Patrol Inspection Guidelines).

When multiple aerial patrols are planned for a calendar year, they will be scheduled across the growing season to ensure that growth issues are detected.

### **4.0 TVM Clearance Requirements (FAC-003 R1.2)**

Progress Energy Transmission vegetation clearance requirements for the TVM program have been established. These clearances comply with the program vegetation clearances requirements of FAC-003.

#### **4.1 Vegetation Clearances Following VM Work (FA-003 R1.2.1)**

The vegetation clearances to be achieved at the time of TVM work completion will comply with the following guidelines:

##### **4.1.1 Clearances Achieved at the Time of TVM Work**

##### **4.1.1.1 Vegetation Clearance: Floor Growth (vertical)**

The vegetation to conductor clearances to be obtained at the time of TVM work completion will use the maximum operating sag of the conductor as the reference point for TVM work for vegetation clearances. The clearance to be obtained at the time of TVM work will use the following criteria:

- Clearances to be cut will include the appropriate 'minimum' conductor to vegetation clearances defined in Table 4 or Table 5 (i.e. Clearance 2) of [MNT-TRMX-00191](#) (TVM Program: Vegetation Clearance Tables)
- Clearances will also include distances for vegetation re-growth as defined in Table 3 of [MNT-TRMX-00191](#) (TVM Program: Vegetation Clearance Tables)
- These combined distances are to be obtained at the time of TVM work below the maximum operating sag point of the conductor
- Minimum safe working distances may also impact clearance requirements at the time work is completed as defined in Table 1 or Table 2 of [MNT-TRMX-00191](#) (TVM Program: Vegetation Clearance Tables)

#### **4.1.1.2 Vegetation Clearance: Side Growth**

To ensure side growth and conductor side-swing impacts are limited, the TVM program targets providing vegetation side growth clearance, in support of Clearance 1 requirements, based on the following criteria:

- Clearance 1 for side growth TVM work is established based on a reasonable conductor movement (i.e. conductor blowout) assumption of less of less than 4.1 psf wind loading or equivalent to approximately 40 mph winds (i.e., sub-tropical storm winds)
- For all rated electrical operating conditions, implementation of Clearance 1 will avoid encroachment and maintenance of Clearance2 which is the 'minimum' conductor to vegetation clearances as defined in Table 4 or Table 5 of [MNT-TRMX-00191](#) (TVM Program: Vegetation Clearance Tables)
- For cases where Clearance 1 cannot be cut at the time of TVM work, mitigation measure to achieve sufficient clearances will be developed.

#### **4.1.2 Safe Working Clearances**

For all vegetation work, the minimum safe working distances defined in Table 1 and Table 2 of [MNT-TRMX-00191](#) (TVM Program: Vegetation Clearance Tables) will be observed.

The majority of all work is normally completed at normal operating (loading/temperature) conditions that ensure the safe working clearances can be observed with no special precautions. When operating conditions and vegetation growth reduce clearances to less than the minimum safe working distances, the work will be rescheduled under the appropriate operating conditions to ensure that safe working clearances can be observed.

### **4.2 Minimum Vegetation to Conductor Clearances (FA-003 R1.2.2)**

The minimum conductor to vegetation clearances, Clearance 2 in FAC-003 (R1.2.2), will be maintained under all rated electrical operating conditions. These clearances are defined in Table 4 and Table 5 of [MNT-TRMX-00191](#) (TVM Program: Vegetation Clearance Tables).

The clearances included in these tables were developed and based on Table 5, IEEE 516-2003, phase to ground distances with appropriate altitude correction factors applied.

## **5.0 Personnel Qualifications (FAC-003 R1.3)**

The following qualifications represent the minimum level of experience and/or education to be hired for the following positions.

### **5.1 Field Inspector/Right of Way Specialist**

#### ***Minimum Qualifications:***

1. Bachelors Degree in Forestry or related field, or 2 year technical degree with 1 years experience, or 5 years experience in utility vegetation management
2. General understanding of Integrated Vegetation Management techniques
3. Understanding of ANSI Z-133 and A-300
4. Understanding of basic electrical systems and causes of vegetation related interruptions
5. General knowledge of proper herbicide uses and application methods
6. Must obtain state pesticide applicators license within 1 year, or work under the direction of an Area Forester
7. Must obtain ISA certification within 1 year, or work under the direction of an Area Forester

### **5.2 Lead Forester/Area Forester**

#### ***Minimum Qualifications:***

1. Bachelors degree in forestry or related field and 3 years utility vegetation management experience or 2 year technical degree and 5 years experience in utility vegetation management
2. Working knowledge of Integrated Vegetation Management techniques
3. Knowledge of NERC Standard FAC-003-1 and its requirements for the Transmission Vegetation Management Program
4. Working knowledge of ANSI Z-133 and A-300
5. Working knowledge of an Integrated Vegetation Management Program including practical applications of herbicides

## **6.0 Corrective Action Plan (FAC-003 R1.4)**

For all locations (spans) on the transmission system where the minimum vegetation clearances cannot be obtained to meet the target frequency cycle for the program component activity, the location will be documented. The following will provide the documentation for all mitigation sites and reactive work:

**Corrective Action Plan**– planned/documented vegetation management work that is scheduled more frequently than TVM program standard frequencies to mitigate vegetation-related clearance issues to ensure the reliability of the system.

- Every span that requires maintenance other than the Program Component Frequencies, in paragraph 2.4.1, will be documented and tracked, including the mitigation measures for that location (i.e., shorter frequencies, etc).

**Reactive Work** – vegetation related work identified in the field, not previously documented or planned, that requires action before scheduled cycle work to mitigate a potential reliability clearance issue.

- The TVM Program reactive work scheduling and tracking process will track all reactive work assigned and completed by TVM personnel.

## **7.0 Imminent Threat Communications (FAC-003 R1.5)**

During the course of TVM work and inspections, any situation or condition that is observed and deemed to present an imminent threat to the Transmission System shall be reported in accordance with the [MNT-TRMX-00192](#) (TVM: Imminent Threat Communication Procedure).

## **8.0 Annual Work Plan (FAC-003 R2)**

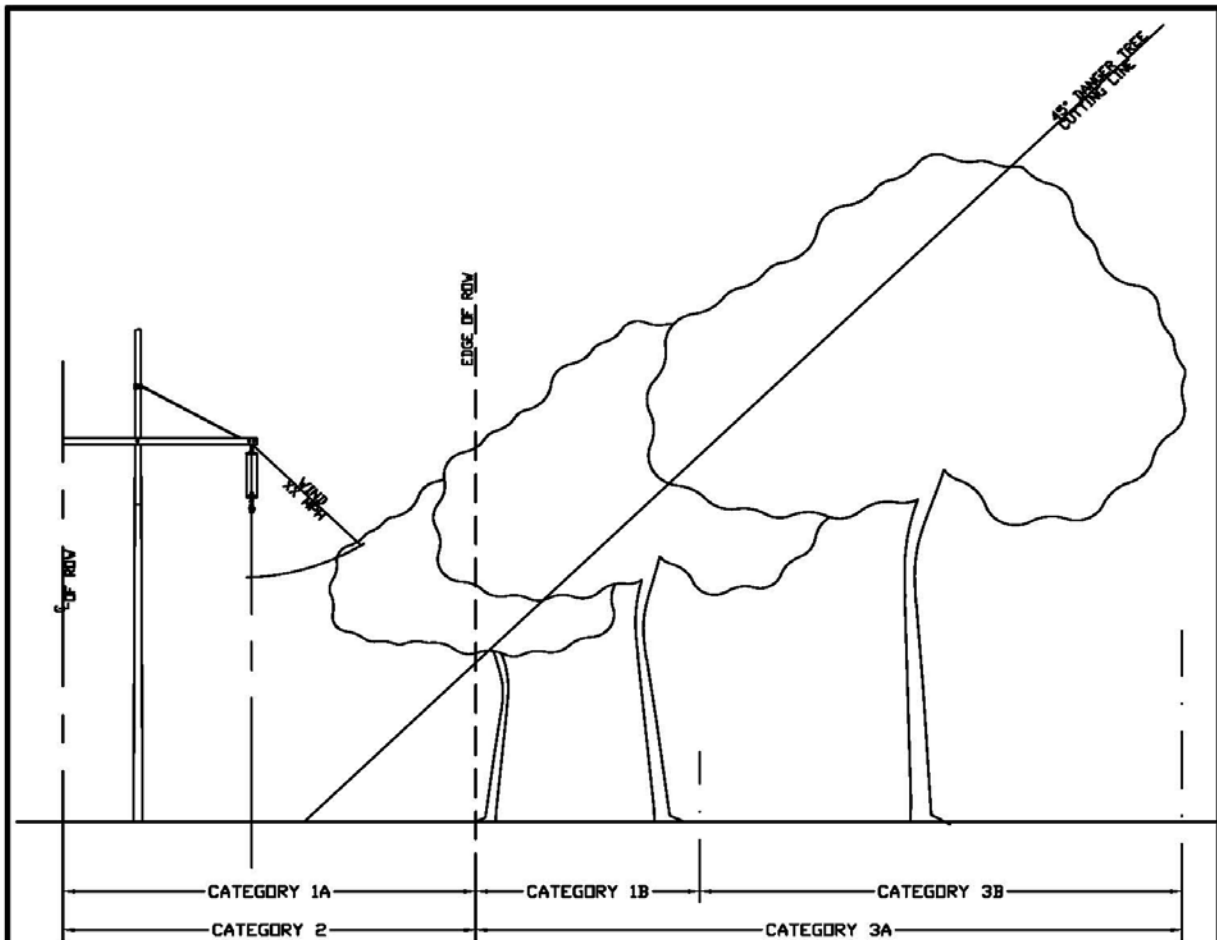
An annual work plan for the year will be maintained for each area managed by an area forester. The plan will be developed for each component activity by line or complete line maintenance. The plan will be developed using previous work completion dates, cycle length and based on annual growth cycles. Changes to the annual plan shall be documented with criteria for any changes and mitigation plans. Each area forester shall maintain a file for reportable lines with work completion information and a line completion form for each activity or complete line maintenance.

## **9.0 Transmission Vegetation Outage Reporting (FAC-003 R3)**

On a periodic basis, as defined by the Region Reliability Organization, the TVM Program will report any outage that meets the criteria defined in FAC-003. In addition, the outage reporting will utilize the following criteria for meeting the FAC-003 reporting requirements:

- The general exclusion criteria in the [MNT-TRMX-00194](#) (Transmission Outage Reporting Process)
- Side growth vegetation-related outages resulting from tropical storm or higher winds (40 mph or greater)
- Vegetation-related outages due to human or animal interference, such as: animal severing tree; vehicle contact with tree, removal or digging or moving of vegetation; logging; arboricultural or horticultural or agricultural activities; etc.)
- Vegetation related outages that result from vegetation falling into lines from outside the ROW that result from natural disasters shall not be considered reportable (examples of disasters that create non-reportable outages include, but are not limited to, earthquakes, fires, tornados, hurricanes, landslides, wind shear, major storms as defined either by [MNT-TRMX-00194](#) --- the Transmission Outage Reporting Process, ice storms, and floods)
- Transmission vegetation categories ([Attachment A](#), [Attachment B](#), [Attachment C](#) & [Attachment D](#))

Attachment A  
Transmission Vegetation Categories



***Vegetation categories.... Reliability compliance categories***

NERC Category 1 - Code/Compliance Trees  
PE A - Grow in trees located inside the right of way that could make contact with the conductor.  
PE B - Trees located outside the right of way that could contact the conductor due to side growth into the right of way or conductor blow out.

NERC Category 2 - Any tree that falls into the line from within the right of way.

NERC Category 3  
PE A - Immediate Reliability Risk: Diseased, damaged, leaning, structurally unsound or dead trees located outside the right of way that would make contact with the conductor or fall to within 5 feet of a point on the ground directly beneath the outside conductor.  
PE B - Long Term Reliability Risk: Trees that are outside of the right of way and could make contact with the conductor or fall to within 5 feet of a point on the ground directly beneath the outside conductor.



**Progress Energy**

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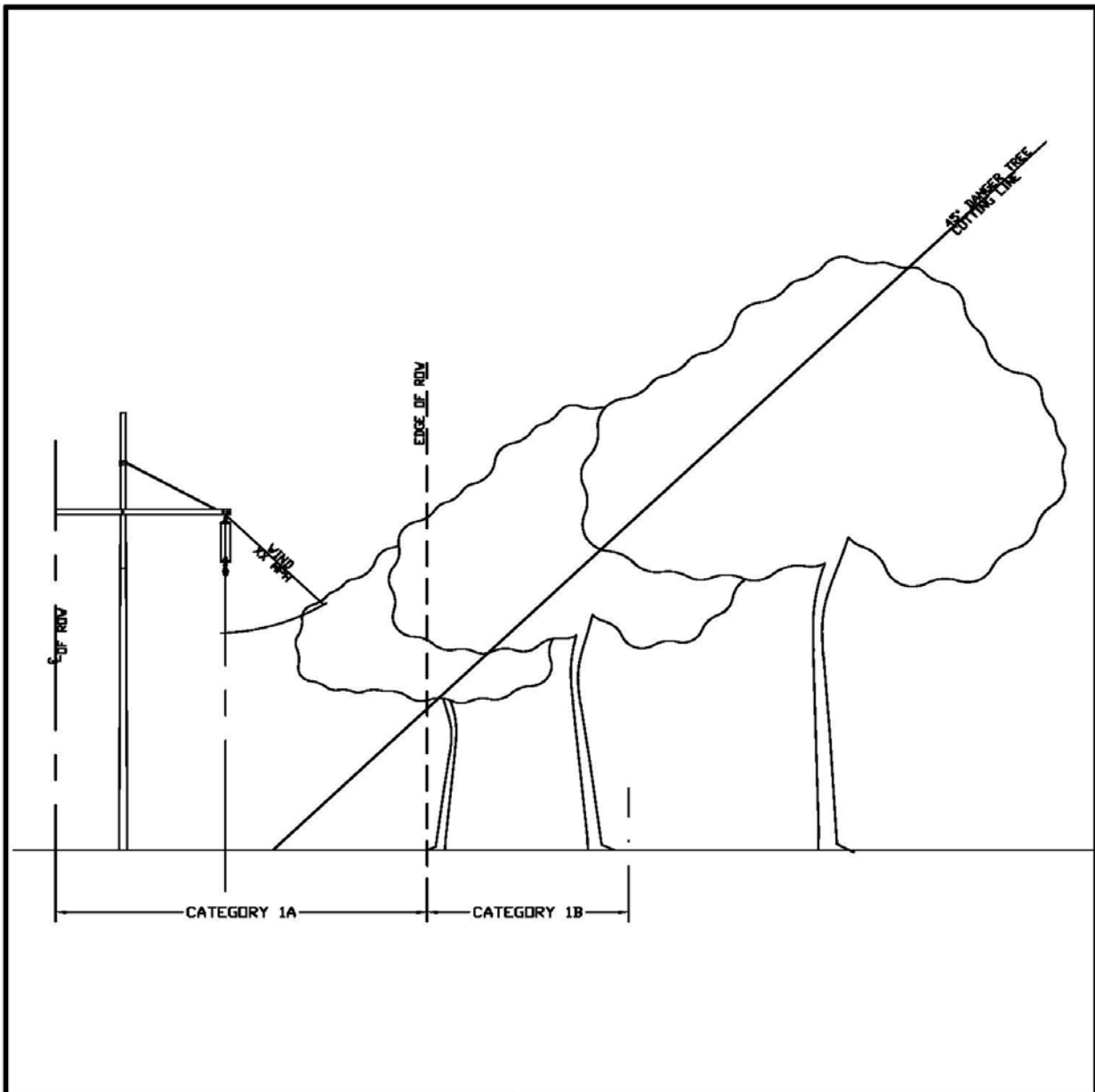
TRANSMISSION  
VEGETATION MANAGEMENT

1 OF 4  
SHEET

DWG.

TVG

Attachment B  
Category 1 Vegetation



NERC Category 1 - Code/Compliance Trees

PE A - Grow in trees located inside the right of way that could make contact with the conductor.

PE B - Trees located outside the right of way that could contact the conductor due to side growth into the right of way or conductor blow out.



**Progress Energy**

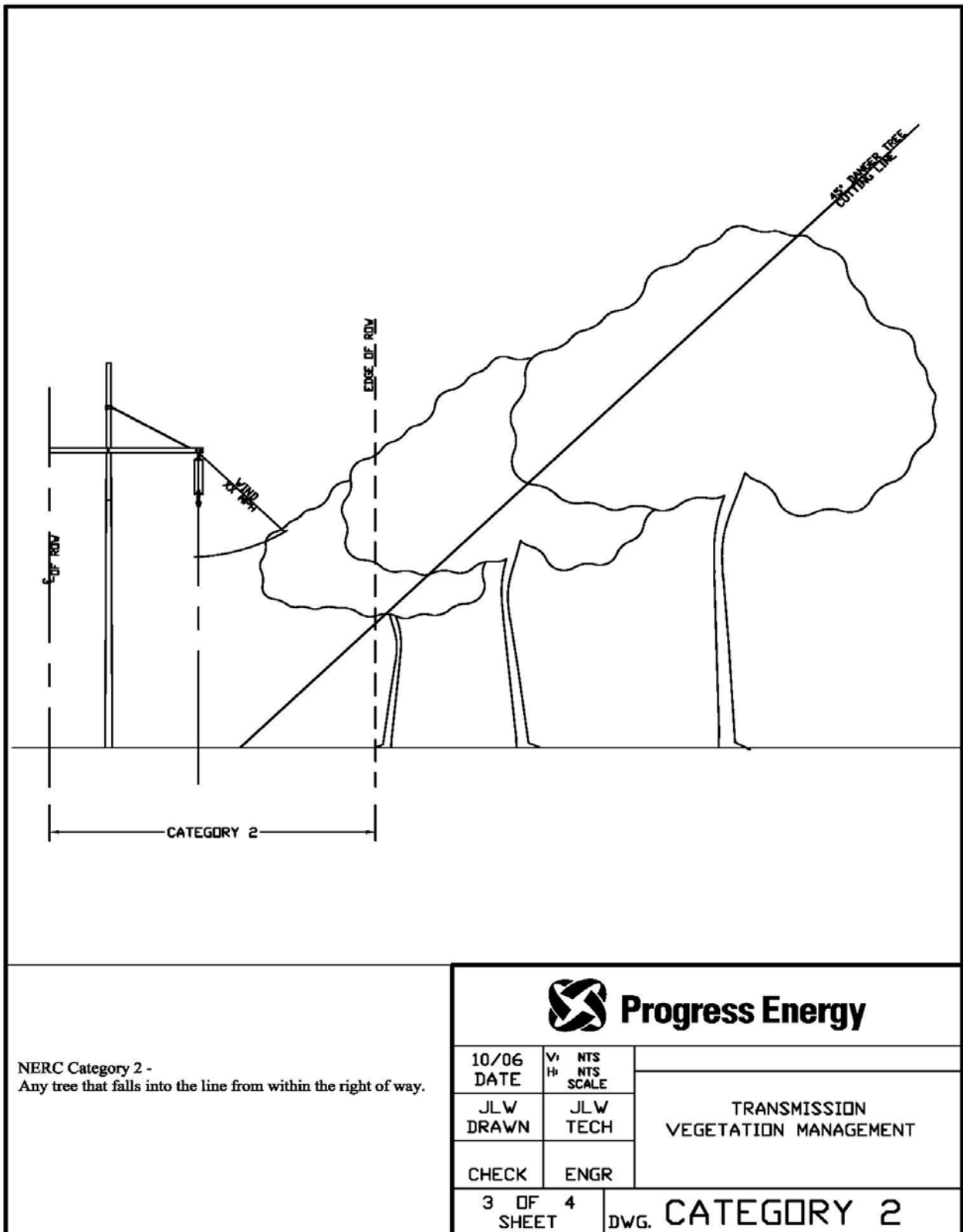
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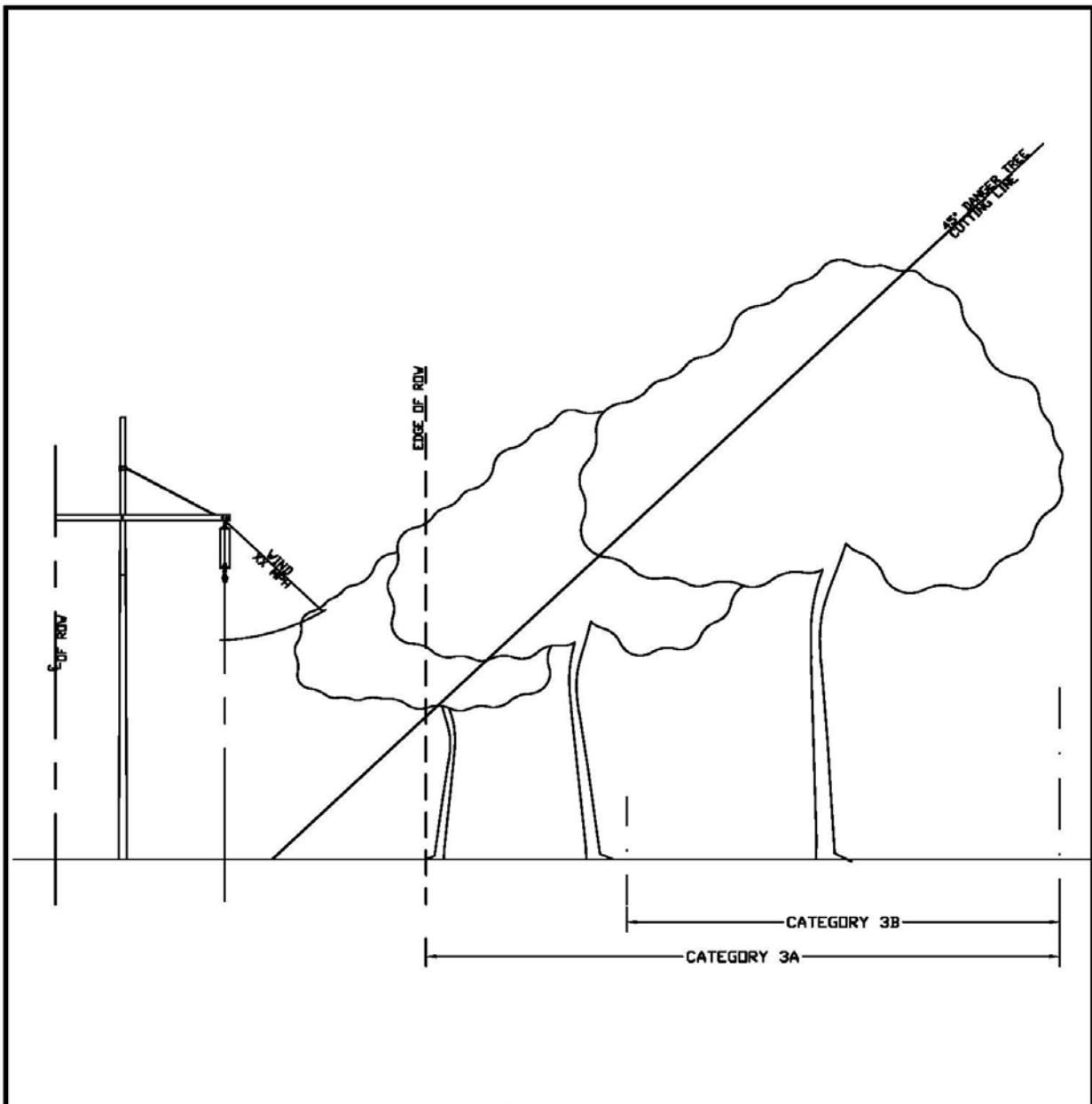
DWG. **CATEGORY 1**

Attachment C  
Category 2 Vegetation





Attachment D  
Category 3 Vegetation



NERC Category 3

**PE A - Immediate Reliability Risk:** Diseased, damaged, leaning, structurally unsound or dead trees located outside the right of way that would make contact with the conductor or fall to within 5 feet of a point on the ground directly beneath the outside conductor.

**PE B - Long Term Reliability Risk:** Trees that are outside of the right of way and could make contact with the conductor or fall to within 5 feet of a point on the ground directly beneath the outside conductor.



**Progress Energy**

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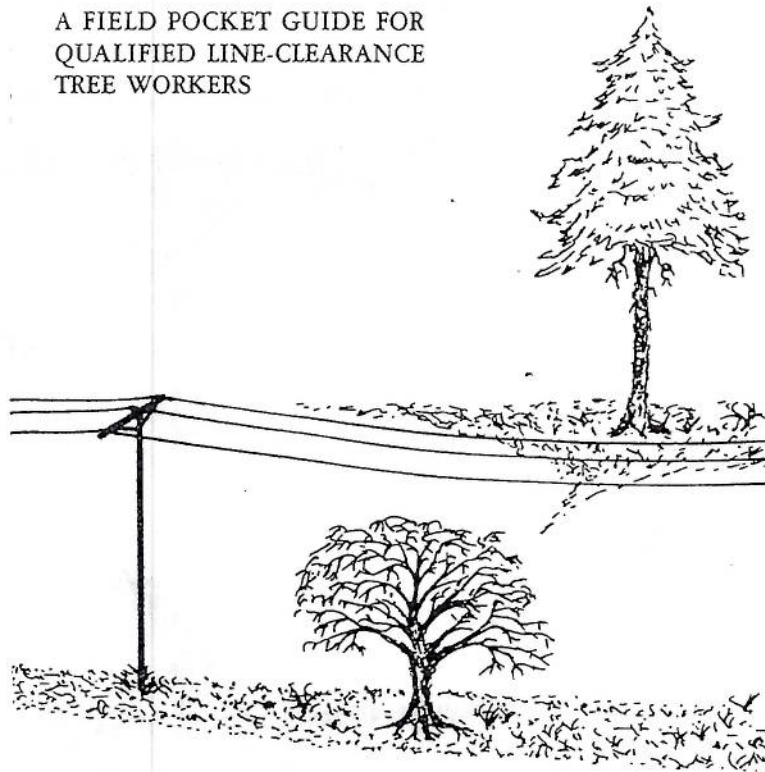
4 OF 4  
SHEET

DWG. CATEGORY 3

# PRUNING TREES

## NEAR ELECTRIC UTILITY LINES

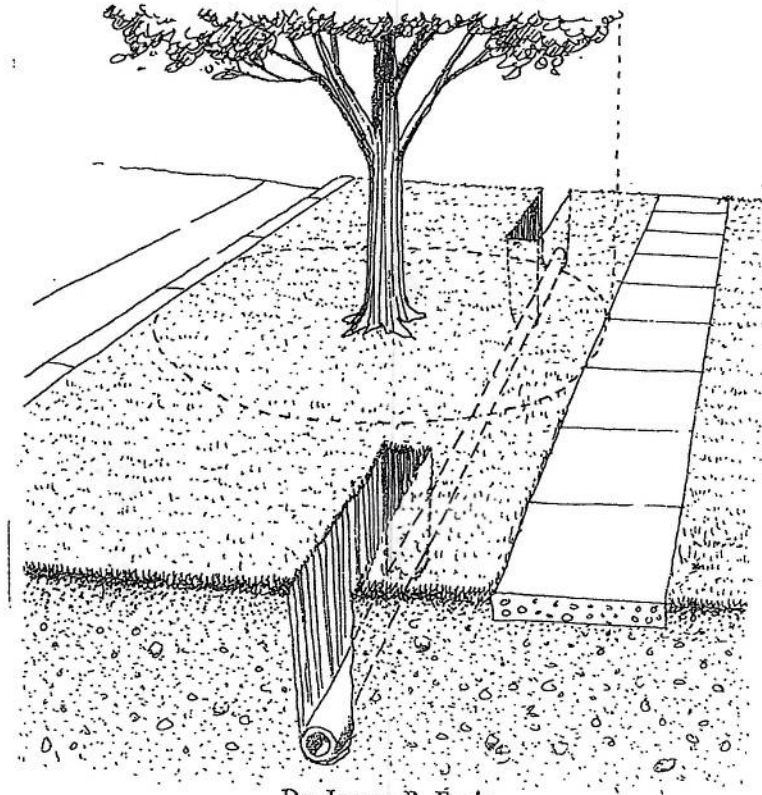
A FIELD POCKET GUIDE FOR  
QUALIFIED LINE-CLEARANCE  
TREE WORKERS



DR. ALEX L. SHIGO

# Trenching & Tunneling Near Trees

A Field Pocket Guide For Qualified Utility Workers



Dr. James R. Fazio

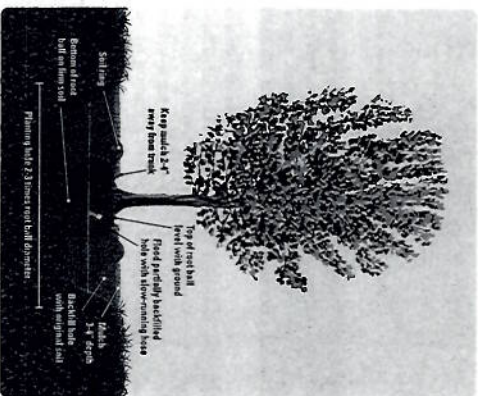
Progress Energy recommends planting these bushes and small-sized trees around powerlines\* throughout our service territory in Florida.

- Sweet Peepers (*Leucaena leucosperma*)
- Leafy Plant (*Alseodaphne latifolia*)
- Sweetbush (*Ulmus carolinianus*)
- Florida Avocado (*Persea caroliniana*)
- Yucca Plant (*Yucca caroliniana*)
- Bayberry (*Myrica aspera*)
- Wax Myrtle (*Myrica caroliniana*)
- Royal Dogwood (*Callistemon rigidus*)
- Shrub (*Syringa caroliniana*)
- Rusty Blackberry (*Rubus carolinianus*)
- Possum-Haw (*Viburnum nudum*)
- Southern Arrowwood (*Viburnum dentatum*)
- Japanese Ligustrum (*Ligustrum japonicum*)
- Sandbarb (*Wikstroemia caroliniana*)
- Fraxinus (*Fraxinus caroliniana*)

You are required by Florida law to call Sunshine State One Call of Florida at 811 at least two full business days before digging so that underground utilities can be located and marked.

\*Flowering trees and shrubs in this list are only recommended with progressive pruning practices. They should not be planted with overhead powerlines. Progress Energy does not recommend planting trees or shrubs near powerlines. If you have questions about a full list of planting species and planting practices, please call us at 800.700.8744 and ask to speak with your local forester.

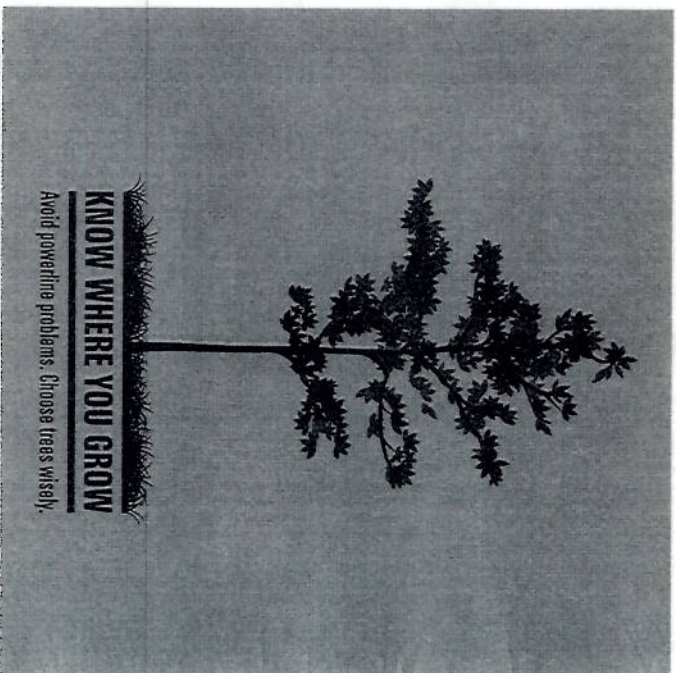
## THE PROPER WAY TO PLANT YOUR NEW TREE



Please visit [progress-energy.com/plantman](http://progress-energy.com/plantman) for more information. If you have further questions, please call us toll-free at 800.700.8744 and ask to speak with your local forester.



Progress Energy



Progress Energy



## PLANTING DISTANCES FROM POWERLINES



## WHAT YOU CAN DO

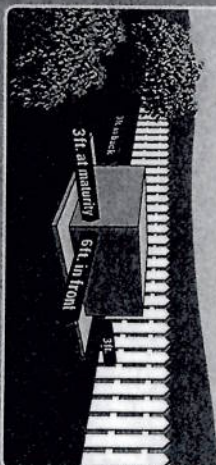
### Protect your power. Know Where You Grow.

Choosing the right tree or plant and the right location for it in your yard is very important. The mature height and spread of the tree must remain 10 feet away from overhead powerlines. \* Plant only small-sized trees (mature height – 15 feet or less) around overhead powerlines. Plant medium-sized trees (mature height – up to 40 feet) 25 feet away from overhead powerlines. Plant large-sized trees (mature height – 40 feet or more) 50 feet away from overhead powerlines. Be careful where you plant around underground powerlines. \* Important roots that are too close to underground powerlines may be damaged if we have to make repairs. Transformer boxes require space free of plants and other objects in your yard. 6 feet in front, 3 feet on the sides. Don't plant vines to cover powerline poles.

Using the right tree or plant in the right location will save it from being pruned or removed, prevent danger from energized tree limbs or vines as well as downed powerlines due to broken limbs or fallen trees, and reduce outages and the time it takes to restore power after storms for you and your neighbors.

\* Planting recommendations in this brochure apply only to properties with lower-voltage distribution powerlines. They do not apply to properties with high-voltage transmission powerlines. Progress Energy does not recommend planting around our transmission powerlines in Florida. If you have questions about what kind of powerlines are on your property, please call us toll-free at 800.700.8764 and ask to speak with your local forester.

### Transformer Boxes Require Space Free of Plants and Other Objects in Your Yard



### What We Do

At Progress Energy, we're committed to growing the safe, reliable power you need every day. That's why we have a comprehensive program to manage the trees and plants growing around our powerlines and in our assemblies. It includes pruning, removing trees and plants, cutting brush and applying herbicides and tree-growth regulators. We balance our responsibility to provide safe, reliable power with concern for the environment that makes your community beautiful. We have been recognized for our progressive practices with the distinctive Tree Line USA designation from The National Arbor Day Foundation.

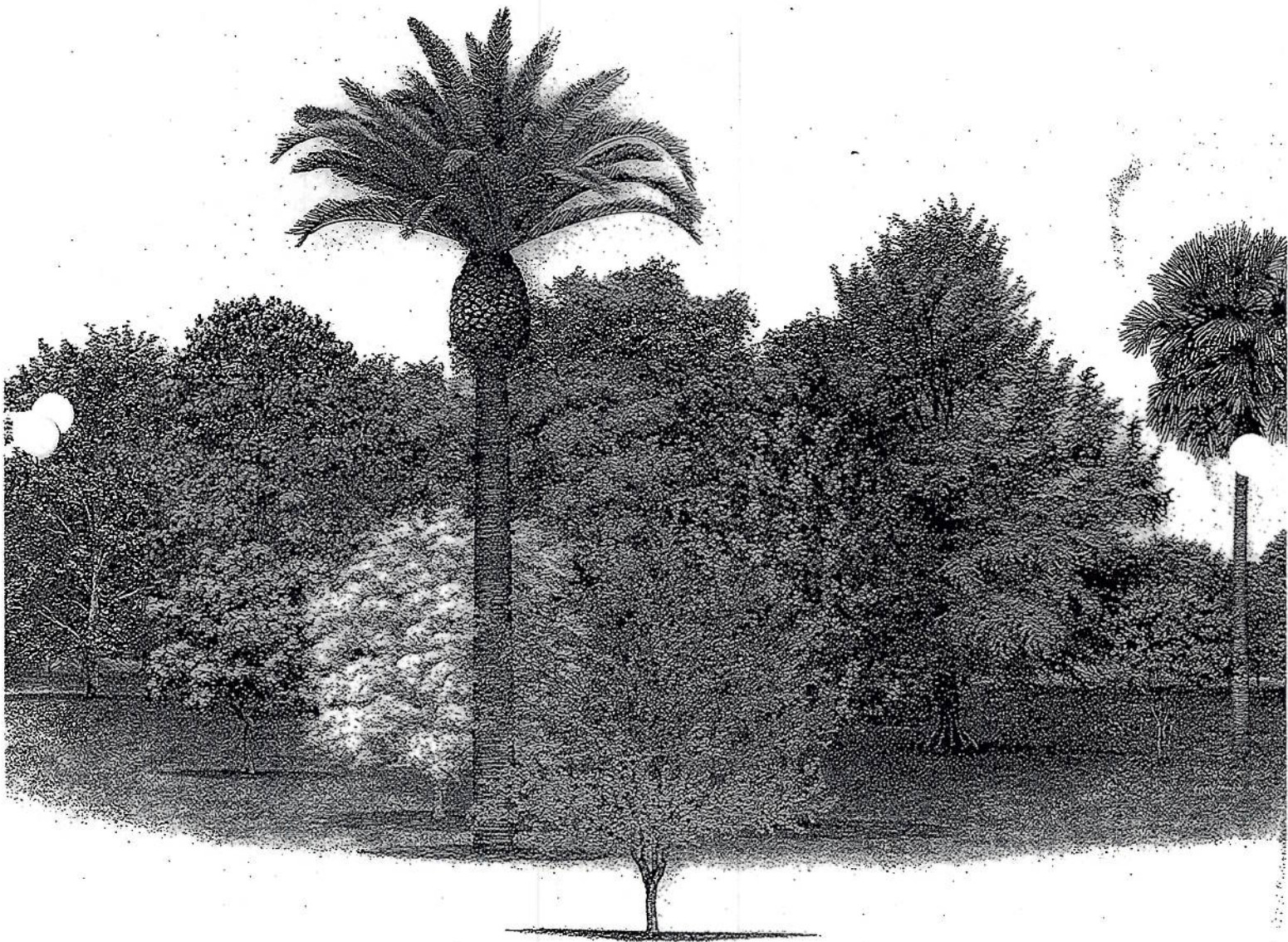


RIGHT TREE / RIGHT PLACE

SELECTING & PLANTING

# Trees for the Central Florida

URBAN FOREST



Florida Urban Forestry Council



Progress Energy Carolinas & Florida  
Distribution Rights-of-Way Vegetation Management  
Lewis Tree Service

## Special Conditions

### 1. Demand, Revenue, and Productivity Tree Crews

Lewis Tree Service ("Contractor") shall provide a qualified workforce, of sufficient size and type, to support all assigned Minor Storm, Demand, Revenue, and Productivity tree work. Contractor will also be responsible to manage all work associated with the work types. If there is not a sufficient amount of work of a given type to support a crew, ***contractor shall utilize that crew in the most efficient manner*** on other work types utilizing the established price structure for the work type.

If Progress Energy ("Owner") determines that any of the Contractor operations is in jeopardy of not meeting goals, Owner will notify Contractor ***in writing*** and instruct Contractor to add resources. Owner will offer the Contractor the opportunity to address the concerns and Contractor will be required to provide Owner with a written plan to address the concerns. If the Contractor does not satisfactorily address the concerns by a mutually agreed upon time, Owner may offer work to other Contractor(s). Contractor shall be responsible for any additional cost associated with Owner getting work completed by other contractor(s). Such changes shall not prompt an adjustment to billing rates.

#### 1.1 Productivity Work

Contractor, with input and concurrence from Owner's Region Forester and/or Designee, will determine the number, type, and crew composition for productivity crews. A workforce sufficient to complete 100% of the assigned productivity work plan will be expected in each region. Work shall be performed so that all work scheduled for each quarter is completed by operations center and region.

Based on Owner's annual strategic vegetation management goals, circuits will be selected for incorporation in the annual plan by utilizing a prioritization model. Once the circuits are selected and the annual productivity work plan is developed it shall be provided by the Region Forester or Designee to the Contractor. The plan will contain work information by operations center, circuit, and calendar quarter, and ***the year last trimmed***. The actual plan and circuits are subject to change based upon factors such as, but not limited to weather, availability of contractor resources, ***system reliability***, and funding level.

Work considered to be part of productivity consists of normal clearance pruning ***on primary, and secondary conductors***, cutting and/or removing of underbrush in areas where there is no mowing or herbicide applications such as but not limited to, urban areas, vacant lots in subdivisions, etc., vine cutting/removal, and customer requests for pruning and or tree felling/removal on a circuit being currently maintained.

Topping of brush shall be prohibited. Brush that is at, or within two feet (2') of the nearest Owner



conductor, including the neutral, on circuits scheduled on the current productivity work plan, shall be cut at ground level. Brush as it pertains to productivity "tree crews" is defined as infrequent volunteer woody vegetation, typically less than six inches (6") in diameter at four feet above ground level (dbh) growing on the ROW floor. Continuous/large areas of brush (entire span(s)) should be maintained either by a specialized herbicide application crew and/or by mowing/hand cutting operations, and not the typical productivity tree crew. Brush around all device/switch poles shall be cut to ground level for a distance of an 8' radius around the pole, or the greatest extent practical *based on the specific situation*.

Internal and external customer requests for dead tree felling within 25' of the nearest primary Conductor, including the neutral, in an active "open" circuit shall be part of Productivity Work. Debris removal from these dead tree felling operations shall be considered demand work. Contractor will be required to document on the "Exceptions" report the locations where debris removal from dead tree felling will require the use of a demand work charging. Dead trees, trees with significant dead tops, or trees that present a significant danger to Owner's facilities and are greater than twenty five (25') from the outermost conductor shall also be recorded by Contractor on the weekly exceptions report for follow-up by the appropriate Owner representative.

Areas with a significant number of dead trees such as fire kills, beetle damage, drought kills, beaver swamps, etc. shall be considered demand work, as directed by Owner's region Forester *or designee*. Customer requests outside of the current circuit that the productivity crews are working shall be considered demand work.

At the beginning of each year, Contractor will be required to provide a business plan including the number, size, and type of crews to be used to perform productivity work for that year.

Productivity Work will include all necessary work on overhead primary, open-wire secondary, guy wires, as well as insulated secondary, including street light circuits. Expectations for clearance will be defined in this attachment, Section 2, "Pruning / Work Specifications".

Contractor will be responsible for determining what type and what amount of each type of work must be completed in the assigned area. Work or rework required as a result of unacceptable quality, such as skips, improper clearance, or otherwise not meeting Owner's specifications shall be performed to meet specifications at Contractor's expense.

### 1.2 Demand Work

Demand crews **may or** may not actually be assigned to a specific operations center but one will be available for use by each operations center. The daily management of the demand crews will be by the Contractor with concurrence from Owner. Contractor will be responsible for completing demand work assigned by the Region. Both parties will mutually agree upon the time frame for Demand Work completion. Demand work consists of internal and external customer requests, small storms, and non-scheduled emergency.

Demand work requests will be field evaluated, approved, and assigned by Owner or designee. If the evaluation results in the determination that the work is justified and cost effective, the work with instructions will be assigned to the Contractor for distribution to a demand crew. Payment for demand crews will be time and equipment (T&E) through the use of the FIRS system at the attached rates. See attachment "B".

If demand work becomes excessive in a given operation center, as compared to historical data, the Region Forester will be available to help the Operations Center and the Contractor evaluate



the use of the demand crews and provide guidance, and training. Owner reserves the right to request changes to crew composition and /or Contractor personnel if work performance is not satisfactory.

The total cost of the demand work shall not exceed the demand work portion of rights-of-way (ROW) budget. Exceptions may be authorized by the ***Owner's Designated Representative***.

### **1.3 Revenue Work**

Contractor will be responsible for providing a revenue workforce suitable in size and qualifications to complete work requests in the time allotted by the Owner's work request assignment system or the work order preparer. If there are increases in revenue construction, Contractor will be expected to provide additional labor, equipment and/or other resources to complete the work by a mutually agreed upon time.

### **1.4 Storm Work**

Contractor's ability to respond to emergency requirements must be maintained such that acceptable response may be made to all Operations Centers in the event of a storm or emergency situation. Contractor and Owner's designees shall mutually agree on the expectations of "acceptable". Acceptable response shall be defined and based on Region and Operations center expectations, physical residence location of contractor employees, and equipment availability.

## **2. Pruning/Work Specifications**

### **2.1 Primary/All Conductors**

Specifications for clearance will be based on the distance from conductors, including the neutral, to the branch tips of encroaching limbs. Trees with limbs that encroach within eight feet (8') of the closest primary or open wire secondary conductor will be pruned, with one exception. The exception is, slow growing tree species that are within eight feet but have a growth rate that will allow for continued acceptable clearance do not have to be pruned. Contractor is responsible to determine what needs to be pruned and will confirm with the Inspector/Forester/***Designee*** the trees that are within eight feet that are not being pruned due to slow growth rates. Contractor and Owner may mutually agree on acceptable clearance while work is in progress. Once a decision has been made to prune the tree, the tree will be pruned back to the full width of the established ROW, typically fifteen feet (15') ***in the Carolinas and the greatest extent possible in Florida. Ever effort shall be made to make cuts at or beyond the old cuts.*** Exceptions to the above are: if Contractor achieves the maximum clearance possible by removing branches at the tree trunk, and tree re-growth causes poor performance characteristics; easement limitations; city ordinance limitations as determined by Owner; Owner verified customer refusals, and Owner approved exceptions. Trees that are valid exceptions, after proper pruning, and do not hold until the next maintenance pruning will be pruned as demand work. Proper pruning techniques shall be used when obtaining clearance.

Trees pruned for the first time shall be pruned to the full extent of the right-of-way. When pruning a tree for the first time Contractor does not have to wait until limbs have encroached within 8' of the conductor to establish future tree form.

Trees that are not pruned to specifications or cause reliability issues (interruptions, outages,



momentaries, etc.), excluding acceptable exceptions, shall be re-worked to meet specifications by Contractor at no additional cost to Owner. Reliability issues typically occur as a result of vegetation that has been in continual contact with conductors. Contact is usually indicated by numerous brown (desiccated) leaves or conductor contact that is causing smoke, sparks, or fire. This type of vegetation issue is typically located above, between, or beside the conductors.

Where not limited by government ordinance, minimum accepted height clearance above the conductor will be the height that can be reached with a 55'-60' lift and a 10'-12' pruner or the hinge-point whichever is greater, *with one exception. In some urban areas there may be large mature overhang that has been allowed to remain by Owner for various reasons. If Owner specifies that this mature overhang must be removed, obtaining the permission to remove overhang shall be the responsibility of Owner. Payment for such overhang removal shall be made utilizing at labor and equipment rates.* Other exceptions may be granted by the Region Forester or *Designee* in areas where overhang within the hinge point has been established for years.

When pruning around primary device/switch poles, including but not limited to oil switches, manual switches, air break switches, capacitor banks, regulators, fused cutouts (excludes fused cutouts that only serve a transformer) contractor shall ensure that a column, consisting of 8' eight feet radius or the greatest extent possible, around the pole shall be cleared from the ground to the hinge point.

Contractor will be held accountable for clearance and quality with incentives and penalties as stated in Attachment "C, Incentives and Penalties".

## 2.2 Open Wire Secondary

Open-wire or hard drawn secondary will be pruned based on the distance from the conductor, including the neutral, to the tips of encroaching limbs. Trees with limbs within eight feet (8') of the conductor will be pruned. *Once a decision has been made to prune the tree, the tree will be pruned back to the full width of the established ROW, typically ten feet (10').* Proper pruning techniques shall be used when obtaining clearance.

## 2.3 Multiplex Cables and Guy Wires

Multiplex cables and guy wires shall be pruned if limbs are in direct contact and are load bearing on the conductors. Load bearing is defined as limb(s) that are in contact with conductors and consist of size and weight causing tension on the conductor or interference with the normal sag or alignment of the conductor. Contractor shall exercise prudent judgment and special consideration during the winter months when the weight of the leaves *may be off* the limbs resulting in *only* a slight clearance between the limb to the conductor.

## 2.4 Dead Trees/Limbs

Dead trees located within twenty five feet (25') of the nearest primary conductor, including the neutral, and pose a threat to Owner's facilities shall be felled. Trees within 25' of the nearest primary conductor that are partially dead and have tops or limbs that pose a threat to Owner's facilities will be made safe by removing the dead portions that are threats to conductors or by felling the entire tree. If a tree is to be felled or removed on private property, even within the easement, every attempt shall be made to secure the owner's written permission to do so. Permission from the appropriate governmental agency may be needed if the tree is located within

the public right-of-way. Dead limbs overhanging primary conductors shall be removed.

### **2.5 Underbrush**

Topping of brush shall be prohibited. Brush that is at, or within two feet (2') of the nearest Owner conductor, including the neutral, shall be cut at ground level during the present productivity work plan. Brush as it pertains to productivity "tree crews" is defined as infrequent volunteer woody vegetation, typically less than six inches (6") dbh growing on the ROW floor. Continuous/large areas of brush (entire span(s)) will be maintained either by a specialized herbicide application crew and/or by mowing/hand cutting operations, and not the typical productivity tree crew. Brush around device/switch, poles including but not limited to oil switches, manual switches, air break switches, capacitor banks, regulators, fused cutouts (excludes fused cutouts that only serve a transformer) shall be cut to ground level for a distance of an eight foot (8') radius around the pole, or the greatest extent *possible and* practical.

### **2.6 Vines**

All vines growing on Owner's facilities (poles, conductors, guys, etc.) shall be cut and/or treated with approved herbicides as they are encountered during Productivity work. As vines are cut a section of stems shall be removed so that it is obvious that all have been cut. Vines that are missed during Productivity shall be the responsibility of Contractor as rework at no additional expense to Owner.

### **2.7 General**

All work must be performed in conformance to requirements of Owner, OSHA, ANSI Z133.1 and A300, as well as other Federal, State, County, and local ordinances that may apply.

## **3. Work Inspection**

Contractor shall be responsible for, and required to inspect all work on a circuit before turning in as complete to the Owner for payment.

Any work identified during Owner inspections, as not meeting Owner specifications shall be forwarded to Contractor for rework at Contractor's expense. Contractor will have five (5) business days to respond to Owner regarding rework notification. Contractor shall complete all rework within ten (10) business days of their response to Owner. Once Contractor completes rework, Contractor shall notify Owner of completion. Owner shall re-inspect the work/rework. If quality is once again found unacceptable, Owner reserves the right to invoice Contractor for all labor and equipment costs for the re-inspection as well as any subsequent inspection costs, until work meets Owner's specifications.

If the work quality or the span unit recorded for payment is identified as questionable, Owner and Contractor authorized representatives will jointly visit and evaluate the work in question to make a mutually agreeable determination. If a determination cannot be made, it shall be referred to the Owner's Supervisor of Vegetation Management and Contractor for resolution.



### 3.1 Productivity Work

Under the Productivity based span program, the Owner is less concerned with footage trimmed, number of span units completed, number of trees pruned, or the number of trees removed. Quality, clearance, and the proper recording of the span unit type are the Owner's major focal *areas*. The Owner's Inspector will check quality and clearance *and verify unit types* with a drive through of the *portion of the circuit* that the Contractor has indicated as complete. *Owner may choose to inventory work prior to Contractor beginning work. If so, Owner shall supply Contractor with a list of all spans, by span identifiers such as pole numbers and unit type. As contractor completes the pre inventoried work, if there are deviations from the units identified by Owner, Contractor shall provide those deviations to Owner in writing. Owner and Contractor shall mutually agree upon the actual unit type to be billed.*

*During the drive through* the inspector may not check and approve the trim footage or clearance distances, but will only verify the fact that the area has been pruned. Quality as it pertains to outages will be addressed in the Attachment "C, Incentives and Penalties".

Contractor will be required to provide all productivity work "completion" documentation, including the invoice, to the Owner's *Region Forester* or designee before inspection initiation can begin. Inspections shall be completed within two weeks after Owner's inspector receives approval to proceed with inspection(s) from Owner's Region Forester *or Designee*. If all required documentation has been received and agreed upon, and work inspections have not been completed on the invoiced circuit within the two weeks, Owner's Region Forester *or Designee* shall approve and forward invoice to Owner's accounting for payment processing. Payment of invoice(s) does not relieve Contractor of the responsibility to perform work or rework not meeting contract specifications. Exceptions to the two week requirement shall be agreed upon in writing by Contractor and Owner's Region Forester *or Designee*.

### 3.2 Demand and Revenue

Owner will inspect Demand and Revenue work on a random basis. Concerns found during inspections will be forwarded to Contractor supervision for resolution. Work not meeting Owner's specifications will be reworked by Contractor at no additional cost to Owner. *If rework is required*, Contractor shall provide Owner with the name of the crew(s) that will perform the rework along with the date it is scheduled to be worked.

## 4. Contractor Workscope Tracking

Contractor will be responsible for tracking all costs and workscope progress for productivity, demand, revenue, mowing, and herbicide work. If requested by the Owner's DR, Contractor management will be required to meet monthly with the Region Forester and Vegetation Management Unit to formally present this information.

Contractor presentation material will include information by region and operations center. Data will include miles/areas in the workscope assigned completed and remaining, *units worked* average cost per mile, % revenue, % demand and % productivity work, herbicide and mowing miles completed, and safety status.

Proposals and/or plans for addressing any deficiencies shall be included in the Contractor

presentation.

## **5. Communications**

### **5.1 Radio/Cell Phone**

At a minimum, Contractor shall provide a two way radio/cell phone to each Supervisor and General Foreperson as well as a two way radio/cell phone to each Demand Crew Foreperson. Herbicide crew forepersons will also be required to have a two way radio/cell phone.

### **5.2 Crew Locations**

If requested by Owner, Contractor shall provide Owner's Designee with crew locations, by region, on a daily basis. Actual means of providing this information shall be mutually agreed upon by the Owner's Designee and the Contractor.

### **5.3 Bilingual Capability**

Contractor shall have at least one English speaking (detailed conversation ability) employee on each crew. This employee shall also have the capability to translate safety information from English to the appropriate Language of the other members on the crew.

### **5.4 Contractor Single Point of Contact**

Contractor shall provide Owner with a single point of contact person for safety and/or human performance issues. This individual shall be the main interface between Contractor and Owner's Contractor Performance Specialist. In order to ensure effective communications, the Contractors contact must have a cell phone and email capabilities.

## **6. Contractor Uniform & Appearance Guidelines**

Contractor employees doing work for Owner must present a professional image to customers and the general public. This image should convey a feeling of confidence that the employees are authorized to be there, and that they are efficient and professional in their work.

Contractor shall provide every employee with uniform clothing. Employees shall report to work each day in Contractor's uniform clothing that is in appropriate and acceptable condition. Appropriate and acceptable shall be defined as:

### **6.1 Appearance**

**Personal appearance** must be neat and clean.

**Facial hair** must be neat and trimmed (trimmed beards are allowed)

**Long hair** must be restrained (i.e., braided or tied)

### **6.2 Uniform**

**Shirt** – Uniform shirt with contractor's name and logo shall be worn at all times. The shirttail should be tucked into the pants whenever practical and must be tucked in when communicating with customers. No tank tops, sleeveless shirts, or shirts with inappropriate graphics or language printed on them will be allowed. Shirts with collars will not be required as defined in Section 19 (Contractor Personnel Matters).



**Jackets or Coveralls** when worn must display the Contractor's name and logo.

**Pants** shall be black, blue, khaki, green, brown, or grey in color and must be hemmed. Pants with holes in the crotch or buttocks shall not be allowed at the work site.

**Hard Hats** are part of the uniform and must display the contractor's logo.

### 6.3 General

- Uniforms must meet all applicable OSHA requirements and regulations.
- Pants, shirts, coveralls, and jackets must be neat in appearance.
- New Contractor employees must be wearing an appropriate uniform within thirty (30) days of their hire date. During the initial thirty (30) days, employees will be expected to wear clothing and boots that meet all OSHA regulations, Owner expectations, and present a professional image.
- These rules must be followed at all times by contractor employees while working on Owner's system.

## 7. Employee Safety

Contractor employees performing work for Owner have a responsibility to present an appropriate safety image to our customers and the public. Every effort shall be made to provide the public and fellow employees with the safest work site possible.

- Boots shall be worn at all times. They must have hard toes and hard soles that are compliant with OSHA regulation 1910.136.
- No metal or loose jewelry shall be worn while at the work site.
- All federal, State, and Local DOT traffic regulations shall be adhered to.
- Appropriate PPE for the job shall be utilized.
- All local state and Federal safety regulations shall be followed.
- Effective pre job briefings shall be conducted, a minimum of one per day. Other briefings may be required as work type, complexity, or location change.

## 8. Contractor Business Plan

If requested by Owner, Contractor must provide a business plan to Owner's DR by the end of the second business week in January. The plan must include the proposed management for all productivity, demand, herbicide and revenue work assigned to Contractor for the year.

## 9. Annual Workplan

Work identified to be managed for the year will be selected based on *circuits* utilizing a reliability based prioritization model. Actual *circuits* to be worked shall be provided to



**Attachment A**

Contractor by the Owner's Region Forester, Designee, or another individual approved by the Owner's DR.

End of Attachment "A"

-All other terms in the Contract and Contract Amendments remain unchanged-

Progress Energy *Carolinas and Florida*  
Distribution Rights-of-Way Vegetation Management  
Lewis Tree Service

## Rights-of-Way Floor Specifications

### Underbrush Mowing / Handcutting

#### 5. General Mowing Workslope

Contractor will be responsible for locating and mowing and/or hand cutting all primary and open wire secondary lines within the assigned *circuits* or workslope area.

Contractor shall provide all labor, management, supervision, tools, equipment, transportation, and other services and facilities necessary for the performance of the work in compliance with these specifications and all applicable laws and regulations.

The price for the work includes all overhead, supervision, profit, taxes, insurance, mileage, travel time, all equipment and tools, etc. required for the work and all other expenses incurred by the Contractor in connection with this work. No additional charges will be paid by Owner.

The Contractor shall limit work schedule to Monday through Friday, with Saturday as a make-up day, between the hours of 6:30 am and 6:00 p.m., excluding national holidays. Work outside of these hours requires prior consent by the Region Forester *or Designee*. Saturday work must be approved by the Region Forester *or Designee* beforehand.

#### 6. Mowing Specifications

All lines shall be either mowed or hand cut, and debris shall be ground up by the mower or removed from all, but not limited to, fields, fence lines, pastures, maintained areas, fire breaks, dirt paths/roads, driveways, highway ROW, etc. When the clearing operations are conducted adjacent to customer maintained yards, special caution must be exercised and any debris shall be removed. Special attention must be given to any vegetation that is cut in areas where livestock is present, especially species such as red maple, black cherry, walnut, etc that may be toxic to livestock. No debris shall be left in any flowing or intermittent stream or ditch, or any area that might be considered as a high water area in adverse conditions.

All poles, guy wires, and anchors shall be cleared of vines and brush at ground level. Brush within an eight-foot radius (8') around poles shall be cut flat to the ground. Angle cut stubs resulting from the use of a brush axe etc. shall not be left.

The full width of the ROW shall be cleared. The ROW will be cleared beyond dead end poles for a minimum of fifteen (15') feet for primary and eight (8') feet for open wire secondary. The Region Forester *or Designee* may grant exceptions where special circumstances exist. The ROW will be mowed as close to the ground as possible, four to six inches will be the maximum acceptable height of stubble and stumps.

Every effort will be made to preserve established *plants such as* Dogwoods, Redbuds, Wax Myrtles, Crepe Myrtles, Sumac, Holly, Cedars, Mountain Laurel, Rhododendron, Blueberry, and other low growing species in the ROW on a spacing that will not inhibit future maintenance operations. *This list is not all inclusive and must be modified based on the region being worked. The Region Forester or Designee can offer guidance on local species.*

Contractor shall perform work in such a manner so as not to interrupt electrical service to Owner's customers or damage Owner's facilities and equipment. Contractor supervision will be responsible for ensuring that any pole damaged by their mowing crew is reported immediately to the Region Forester or *Designee*, and if immediate repair is necessary to the local Operations Center. Each contractor Crew Leader shall demonstrate actively caring and notify the Region Forester, *Inspector, or Designee* of any damaged pole that has worked around, regardless of what caused the damage. Notification may be attached to the time sheet unless immediate danger exists; in which case the Crew Leader will notify the appropriate Operations Center immediately.

Contractor shall not clear brush or perform any other form of ROW maintenance activity without first obtaining any necessary permits from all local, state or federal authorities having jurisdiction.

Notification of individual property owners will only be required, as a courtesy, in cases where the property owner is on the property at the time of mowing or in known cases of customer concern. *This policy may be changed at any time that Owner deems it necessary. Changes to the notification policy shall be communicated to Contractor by Owners Designated Representative.* After notification, if the property owner objects to the ROW maintenance, Contractor agrees to make every reasonable effort to obtain permission to carry out the provisions of these specifications. If all efforts to obtain consent to perform the required maintenance are unsuccessful, the Contractor shall notify the Region Forester *or Designee* in writing within forty-eight (48) hours of the circumstances involved; listing name of person refusing permission, their address, their reason for refusal, and a record of Contractor's efforts to obtain permission. The Region Forester *or Designee* shall then take or recommend appropriate action. If Owner's action results in obtaining permission to perform the required maintenance within thirty (30) days of the date of Contractor's written notice of refusal; the work shall be done by Contractor at no extra cost to Owner.

No extra or additional work outside the scope of work required herein will be performed by Contractor unless authorized in writing by Owner. Additional work approved by Owner will be described in detail and the cost of the work will be stated and agreed upon in writing by both parties.

Owner reserves the right to relocate a crew or crews to perform extra maintenance, demand, revenue, or emergency work. The completion date for the impacted contract work will be extended by the same amount of delay time caused by Owner. If applicable, the rate of pay for



extra maintenance work, revenue work, and emergency work will be in accordance with the Schedule of Unit Prices in effect in attachment "B"

Any fence taken down, opened or unlocked shall be restored to as good as or better condition. Every effort will be made to prevent damage to fences, roads, bridges, drainage ditches, dams, ponds, and all other property. Contractor will be responsible for all property damage caused by his herbicide application operations. Customer complaints and claims arising from the work performed shall be resolved before the work is considered complete for payment by Owner, unless litigation is involved. The Contractor shall inform the Region Forester *or Designee* of all such complaints and claims. Contractor will contact the customer and Region Forester *or Designee* within twenty-four (24) hours of being notified by customer of a complaint.

Contractor shall instruct and require its personnel to conduct themselves in a professional manner, in their relations with property owners and members of the general public. Conduct must preserve and improve Owner's customer relations. Contractor's company identification (logo and name) shall be visible on both sides of each vehicle and on employee uniform clothing. All Contractor personnel will be required to wear sleeved uniform shirts that bear the Contractor's identification

Contractor shall submit a schedule detailing the work to be performed based on the location of distribution lines as outlined on the system inventory map, indicating beginning and ending areas. Also to be included is a listing of the crews and equipment to be used in these areas.

If work is performed using Time End equipment rates, Contractor shall submit weekly time sheets showing men, equipment and number of hours worked by each, as well as line miles completed.

## **7. Work Inspection and Acceptance**

Owner's representative and a representative of Contractor shall make periodic inspections of the work performed, a minimum of every two weeks. Final inspection of completed circuits shall be made jointly by Owner's representative and a representative of Contractor.

Following Owner's inspections, any work not performed to specifications shall be performed by Contractor at no additional cost to Owner. Re-work shall be performed as necessary to complete the work to specifications before work is accepted by Owner and payment is made.

End of attachment "D"

-All other terms in the Contract and Contract Amendments remain unchanged-

for Tree Care Operations —  
Tree, Shrub, and Other Woody Plant Management —  
Standard Practices (*Pruning*)

Secretariat  
Tree Care Industry Association, Inc.

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## **American National Standard**

Approval of an American National Standard requires review by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer.

Consensus is established when, in the judgement of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution.

The use of American National Standards is completely voluntary; their existence does not in any respect preclude anyone, whether he has approved the standards or not, from manufacturing, marketing, purchasing or using products, processes or procedures not conforming to the standards.

The American National Standards Institute does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute. Requests for interpretations should be addressed to the secretariat or sponsor whose name appears on the title page of this standard.

**CAUTION NOTICE:** This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken periodically to reaffirm, revise, or withdraw this standard. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute.

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\* The term pruning type is replaced with the term pruning method. The purpose of this is to label the processes detailed in section 6 with greater accuracy.

**Foreword** This foreword is not part of American National Standard A300 (Part 1)-2008  
*Pruning*

ANSI A300 Standards are divided into multiple parts, each focusing on a specific aspect of woody plant management (e.g. Pruning, Fertilization, etc).

These standards are used to develop written specifications for work assignments. They are not intended to be used as specifications in and of themselves. Management objectives may differ considerably and therefore must be specifically defined by the user. Specifications are then written to meet the established objectives and must include measurable criteria.

ANSI A300 standards apply to professionals who provide for or supervise the management of trees, shrubs, and other woody landscape plants. Intended users include businesses, government agencies, property owners, property managers, and utilities. The standard does not apply to agriculture, horticultural production, or silviculture, except where explicitly noted otherwise.

This standard has been developed by the Tree Care Industry Association (TCIA), an ANSI-accredited Standards Developing Organization (SDO). TCIA is secretariat of the ANSI A300 standards, and develops standards using procedures accredited by the American National Standards Institute (ANSI).

Consensus for standards writing was developed by the Accredited Standards Committee on Tree, Shrub, and Other Woody Plant Management Operations – Standard Practices, A300 (ASC A300).

Prior to 1991, various industry associations and practitioners developed their own standards and recommendations for tree care practices. Recognizing the need for a standardized, scientific approach, green industry associations, government agencies and tree care companies agreed to develop consensus for an official American National Standard.

The result – ANSI A300 standards – unify and take authoritative precedence over all previously existing tree care industry standards. ANSI requires that approved standards be developed according to accepted principles, and that they be reviewed and, if necessary, revised every five years.

TCIA was accredited as a standards developing organization with ASC A300 as the consensus body on June 28, 1991. ASC A300 meets regularly to write new, and review and revise existing ANSI A300 standards. The committee includes industry representatives with broad knowledge and technical expertise from residential and commercial tree care, utility, municipal and federal sectors, landscape and nursery industries, and other interested organizations.

Suggestions for improvement of this standard should be forwarded to: A300 Secretary, c/o Tree Care Industry Association, Inc., 136 Harvey Road - Suite B101-B110, Londonderry, NH, 03053.

ANSI A300 (Part 1)-2008 Pruning was approved as an American National Standard by ANSI on May 1, 2008. ANSI approval does not require unanimous approval by ASC A300. The ASC A300 committee contained the following members at the time of ANSI approval:

Tim Johnson, Chair  
(Artistic Arborist, Inc.)

Bob Rouse, Secretary  
(Tree Care Industry Association, Inc.)

(Continued)

<i>Organizations Represented</i>	<i>Name of Representative</i>
American Nursery and Landscape Association .....	Warren Quinn
	Craig J. Regelbrugge (Alt.)
American Society of Consulting Arborists .....	Donald Zimar
American Society of Landscape Architects .....	Ron Leighton
Asplundh Tree Expert Company .....	Geoff Kempter
	Peter Fengler (Alt.)
Bartlett Tree Expert Company .....	Peter Becker
	Dr. Thomas Smiley (Alt.)
Davey Tree Expert Company .....	Joseph Tommasi
	R.J. Laverne (Alt.)
International Society of Arboriculture .....	Bruce Hagen
	Sharon Lilly (Alt.)
National Park Service .....	Robert DeFeo
	Dr. James Sherald (Alt.)
Professional Grounds Management Society .....	Thomas Shaner
Professional Land Care Network .....	Preston Leyshon
Society of Municipal Arborists .....	Gordon Mann
	Andy Hillman (Alt.)
Tree Care Industry Association .....	Dane Buell
	James McGuire (Alt.)
USDA Forest Service .....	Ed Macie
	Keith Cline (Alt.)
Utility Arborist Association .....	Matthew Simons
	Jeffrey Smith (Alt.)

#### **Additional organizations and individuals:**

American Forests (Observer)  
 Mike Galvin (Observer)  
 Peter Gerstenberger (Observer)  
 Dick Jones (Observer)  
 Myron Laible (Observer)  
 Beth Palys (Observer)  
 Richard Rathjens (Observer)  
 Richard Roux (NFPA-780 Liaison)

#### **ASC A300 mission statement:**

*Mission: To develop consensus performance standards based on current research and sound practice for writing specifications to manage trees, shrubs, and other woody plants.*



## American National Standard for Tree Care Operations —

# Tree, Shrub, and Other Woody Plant Management — Standard Practices (Pruning)

## 1 ANSI A300 standards

### 1.1 Scope

ANSI A300 standards present performance standards for the care and management of trees, shrubs, and other woody plants.

### 1.2 Purpose

ANSI A300 performance standards are intended for use by federal, state, municipal and private entities including arborists, property owners, property managers, and utilities for developing written specifications.

### 1.3 Application

ANSI A300 performance standards shall apply to any person or entity engaged in the management of trees, shrubs, or other woody plants.

## 2 Part 1 — Pruning standards

### 2.1 Purpose

The purpose of Part 1 — *Pruning* is to provide performance standards for developing written specifications for pruning.

### 2.2 Reasons for pruning

The reasons for tree pruning may include, but are not limited to, reducing risk, managing tree health and structure, improving aesthetics, or achieving other specific objectives. Pruning practices for agricultural, horticultural production, or silvicultural purposes are exempt from this standard unless this standard, or a portion thereof, is expressly referenced in standards for these other related areas.

## 2.3 Implementation

**2.3.1** Specifications for pruning should be written and administered by an arborist.

**2.3.1.1** Specifications should include location of tree(s), objectives, methods (types), and extent of pruning (location, percentage, part size, etc).

**2.3.2** Pruning specifications shall be adhered to.

## 2.4 Safety

**2.4.1** Pruning shall be implemented by an arborist, familiar with the practices and hazards of pruning and the equipment used in such operations.

**2.4.2** This performance standard shall not take precedence over applicable industry safe work practices.

**2.4.3** Performance shall comply with applicable Federal and State Occupational Safety and Health standards, ANSI Z133.1, Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and other Federal Environmental Protection Agency (EPA) regulations, as well as state and local regulations.

## 3 Normative references

The following standards contain provisions, which, through reference in the text, constitute provisions of this American National Standard. All standards are subject to revision, and parties to agreements based on this American National Standard shall apply the most recent edition of the standards indicated below.

ANSI Z60.1, Nursery stock  
ANSI Z133.1, Arboriculture — Safety requirements  
29 CFR 1910, General industry <sup>1)</sup>  
29 CFR 1910.268, Telecommunications <sup>1)</sup>  
29 CFR 1910.269, Electric power generation, transmission, and distribution <sup>1)</sup>  
29 CFR 1910.331 - 335, Electrical safety-related work practices <sup>1)</sup>

## 4 Definitions

**4.1 arboriculture:** The art, science, technology, and business of commercial, public, and utility tree care.

<sup>1)</sup> Available from U.S. Department of Labor, 200 Constitution Avenue, NW, Washington, DC 20210



**4.2 arborist:** An individual engaged in the profession of arboriculture who, through experience, education, and related training, possesses the competence to provide for or supervise the management of trees and other woody plants.

**4.3 arborist trainee:** An individual undergoing on-the-job training to obtain the experience and the competence required to provide for or supervise the management of trees and other woody plants. Such trainees shall be under the direct supervision of an arborist.

**4.4 branch:** A shoot or stem growing from a parent branch or stem (See Fig. 4.4).

**4.4.1 codominant branches/codominant leaders:** Branches or stems arising from a common junction, having nearly the same size diameter (See Fig. 4.4).

**4.4.2 lateral branch:** A shoot or stem growing from another branch (See Fig. 4.4).

**4.4.3 parent branch or stem:** A tree trunk or branch from which other branches or shoots grow (See Fig. 4.4).

**4.4.4 scaffold branch:** A primary branch that forms part of the main structure of the crown (See Fig. 4.4).

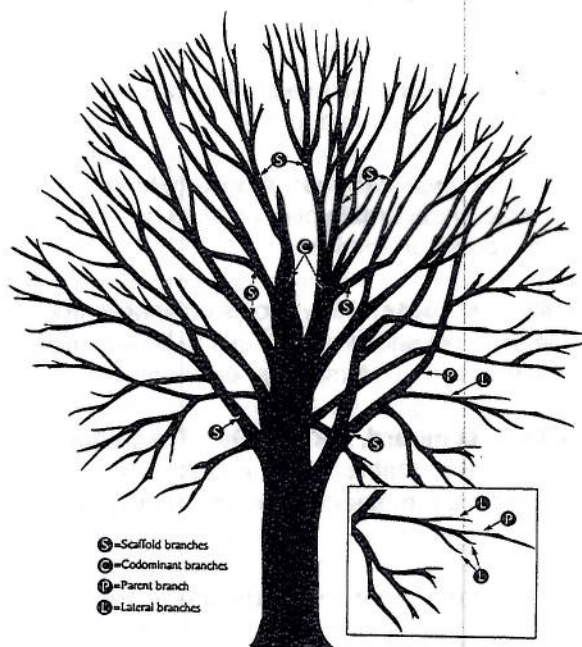


Figure 4.4 Standard branch definitions.

**4.5 branch bark ridge:** The raised area of bark in the branch crotch that marks where the branch and parent stem meet. (See Figs. 5.3.2 and 5.3.3).

**4.6 branch collar:** The swollen area at the base of a branch.

**4.7 callus:** Undifferentiated tissue formed by the cambium around a wound.

**4.8 cambium:** The dividing layer of cells that forms sapwood (xylem) to the inside and inner bark (phloem) to the outside.

**4.9 clean:** Selective pruning to remove one or more of the following non-beneficial parts: dead, diseased, and/or broken branches (7.2).

**4.10 climbing spurs:** Sharp, pointed devices strapped to a climber's lower legs used to assist in climbing trees. (syn.: gaffs, hooks, spurs, spikes, climbers)

**4.11 closure:** The process in a woody plant by which woundwood grows over a pruning cut or injury.

**4.12 crown:** Upper part of a tree, measured from the lowest branch, including all the branches and foliage.

**4.13 decay:** The degradation of woody tissue caused by microorganisms.

**4.14 espalier:** The combination of pruning, supporting, and training branches to orient a plant in one plane (6.5).

**4.15 establishment:** The point after planting when a tree's root system has grown sufficiently into the surrounding soil to support growth and anchor the tree.

**4.16 facility:** A structure or equipment used to deliver or provide protection for the delivery of an essential service, such as electricity or communications.

**4.17 frond:** A leaf structure of a palm.

**4.18 heading:** The reduction of a shoot, stem, or branch back to a bud or to a lateral branch not large enough to assume the terminal role.



- 4.19 interfering branches:** Crossing, rubbing, or upright branches that have the potential to damage tree structure and/or health.
- 4.20 internode:** The area between lateral branches or buds.
- 4.21 job briefing:** The communication of at least the following subjects for arboricultural operations: work specifications, hazards associated with the job, work procedures involved, special precautions, electrical hazards, job assignments, and personal protective equipment.
- 4.22 leader:** A dominant, typically upright, stem – usually the main trunk. There can be several leaders in one tree.
- 4.23 lion's tailing:** The removal of an excessive number of inner and/or lower lateral branches from parent branches. Lion's tailing is not an acceptable pruning practice (6.1.7).
- 4.24 live crown ratio:** Crown height relative to overall plant height.
- 4.25 mechanical pruning:** A pruning technique where large-scale power equipment is used to cut back branches (9.3.2).
- 4.26 method:** A procedure or process for achieving an objective.
- 4.27 peeling:** The removal of dead frond bases without damaging living trunk tissue at the point they make contact with the trunk. (syn.: shaving)
- 4.28 petiole:** A stalk of a leaf or frond.
- 4.29 pollarding:** Pruning method in which tree branches are initially headed and then reduced on a regular basis without disturbing the callus knob (6.6).
- 4.30 pruning:** The selective removal of plant parts to meet specific goals and objectives.
- 4.31 qualified line-clearance arborist:** An individual who, through related training and on-the-job experience, is familiar with the equipment and hazards in line clearance and has demonstrated the ability to perform the special techniques involved. This individual may or may not be currently employed by a line-clearance contractor.
- 4.32 qualified line-clearance arborist trainee:** An individual undergoing line-clearance training under the direct supervision of a qualified line-clearance arborist. In the course of such training, the trainee becomes familiar with the equipment and hazards in line clearance and demonstrates ability in the performance of the special techniques involved.
- 4.33 raise:** Pruning to provide vertical clearance (7.3).
- 4.34 reduce:** Pruning to decrease height and/or spread (7.4).
- 4.35 remote area:** As used in the utility pruning section of this standard, an unpopulated area.
- 4.36 restoration:** Pruning to redevelop structure, form, and appearance of topped or damaged trees (6.3).
- 4.37 rural area:** As used in the utility pruning section of this standard, a sparsely populated place away from large cities, suburbs, or towns but distinct from remote areas.
- 4.38 shall:** As used in this standard, denotes a mandatory requirement.
- 4.39 shoot:** Stem or branch and its leaves, especially when young.
- 4.40 should:** As used in this standard, denotes an advisory recommendation.
- 4.41 specifications:** A document stating a detailed, measurable plan or proposal for provision of a product or service.
- 4.42 sprouts:** New shoots originating from epicormic or adventitious buds, not to be confused with suckers. (syn.: watersprouts, epicormic shoots)
- 4.43 standard, ANSI A300:** The performance parameters established by industry consensus as a rule for the measure of extent, quality, quantity, value or weight used to write specifications.
- 4.44 stem:** A woody structure bearing buds, foliage, and giving rise to other stems.
- 4.45 structural pruning:** Pruning to improve branch architecture (6.2).



**4.46 stub:** Portion of a branch or stem remaining after an internodal cut or branch breakage.

**4.47 subordination:** Pruning to reduce the size and ensuing growth rate of a branch or leader in relation to other branches or leaders.

**4.48 sucker:** Shoot arising from the roots.

**4.49 thin:** pruning to reduce density of live branches (7.5).

**4.50 throw line:** A small, lightweight line with a weighted end used to position a climber's rope in a tree.

**4.51 topping:** Reduction of tree size using internodal cuts without regard to tree health or structural integrity. Topping is not an acceptable pruning practice (6.1.7).

**4.52 tracing:** The removal of loose, damaged tissue from in and around the wound.

**4.53 trunk:** The main woody part of a tree beginning at and including the trunk flare and extending up into the crown from which scaffold branches grow.

**4.54 trunk flare:** 1. The area at the base of the plant's trunk where it broadens to form roots. 2. The area of transition between the root system and trunk (syn.: root flare).

**4.55 urban/residential areas:** Populated areas including public and private property that are normally associated with human activity.

**4.56 utility:** A public or private entity that delivers a public service, such as electricity or communications.

**4.57 utility space:** The physical area occupied by a utility's facilities and the additional space required to ensure its operation.

**4.58 vista/view prune:** Pruning to enhance a specific view without jeopardizing the health of the tree (6.4).

**4.59 wound:** An opening that is created when the bark of a live branch or stem is cut, penetrated, damaged, or removed.

**4.60 woundwood:** Partially differentiated tissue responsible for closing wounds. Woundwood develops from callus associated with wounds.

## 5 Pruning practices

### 5.1 Tree inspection

**5.1.1** An arborist or arborist trainee shall visually inspect each tree before beginning work.

**5.1.2** If a condition is observed requiring attention beyond the original scope of the work, the condition should be reported to an immediate supervisor, the owner, or the person responsible for authorizing the work.

**5.1.3** Job briefings shall be performed as outlined in ANSI Z133.1, subclause 3.1.4.

### 5.2 Tools and equipment

**5.2.1** Equipment, tools, and work practices that damage living tissue and bark beyond the scope of normal work practices shall be avoided.

**5.2.2** Climbing spurs shall not be used when entering and climbing trees for the purpose of pruning.

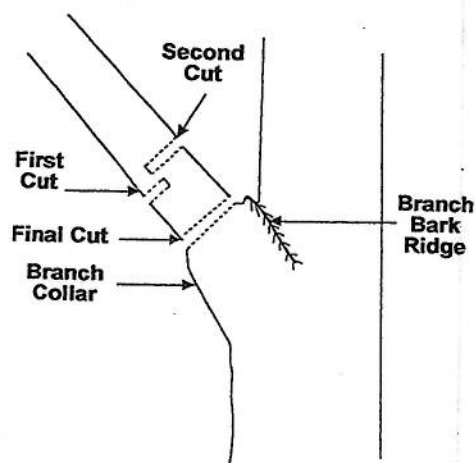
Exceptions:

- when branches are more than throw-line distance apart and there is no other means of climbing the tree;
- when the outer bark is thick enough to prevent damage to the inner bark and cambium;
- in remote or rural utility rights-of-way.

### 5.3 Pruning cuts

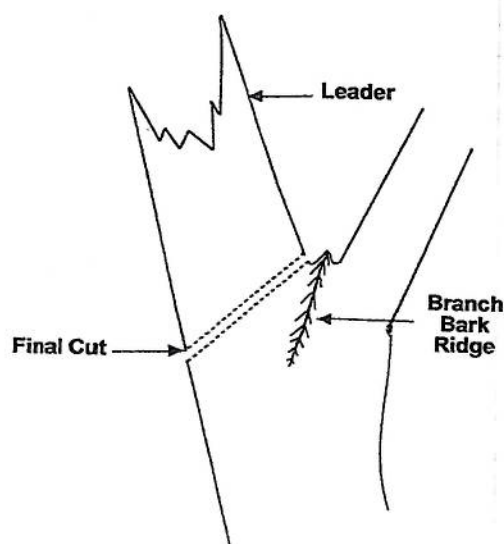
**5.3.1** Pruning tools used in making pruning cuts shall be sharp.

**5.3.2** A pruning cut that removes a branch at its point of origin shall be made close to the trunk or parent branch without cutting into the branch bark ridge or branch collar or leaving a stub (see Figure 5.3.2).



**Figure 5.3.2.** A cut that removes a branch at its point of origin. (See Annex A – Pruning cut guideline).

**5.3.3** A pruning cut that reduces the length of a branch or parent stem shall be made at a slight downward angle relative to the remaining stem and not damage the remaining stem. Smaller cuts shall be preferred (see Fig. 5.3.3).



**Figure 5.3.3.** A cut that reduces the length of a branch or parent stem.

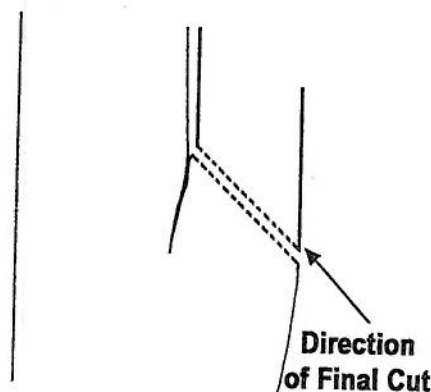
**5.3.4** When pruning to a lateral, the remaining lateral branch should be large enough to assume the terminal role.

**5.3.5** The final cut should result in a flat surface with adjacent bark firmly attached.

**5.3.6** When removing a dead branch, the final cut shall be made just outside the collar of living tissue.

**5.3.7** Tree branches shall be removed in such a manner so as to avoid damage to other parts of the tree or to other plants or property. Branches too large to support with one hand shall be pre-cut to avoid splitting of the wood or tearing of the bark (see Figure 5.3.2). Where necessary, ropes or other equipment shall be used to lower large branches or portions of branches to the ground.

**5.3.8** A cut that removes a branch with a narrow angle of attachment should be made from the outside of the branch to prevent damage to the parent branch (see Figure 5.3.8).



**Figure 5.3.8.** A cut that removes a branch with a narrow angle of attachment.

**5.3.9** Severed branches shall be removed from the crown upon completion of the pruning, at times when the tree would be left unattended, or at the end of the workday.

## 5.4 Wound treatment

**5.4.1** Wound treatments shall not be used to cover wounds or pruning cuts, except when necessary for disease, insect, mistletoe, or sprout control, or for cosmetic reasons.



**5.4.2** Wound treatments that are damaging to tree tissues shall not be used.

**5.4.3** When tracing wounds, only loose, damaged tissue shall be removed.

## **6 Pruning objectives**

**6.1** Pruning objectives shall be established prior to beginning any pruning operation.

**6.1.1** Objectives should include, but are not limited to, one or more of the following:

- Risk reduction
- Manage health
- Clearance
- Structural improvement/correction
- View improvement/creation
- Aesthetic improvement
- Restoration

**6.1.2** Established objectives should be specified in writing (See Annex B – *Specification writing guideline*).

**6.1.3** To obtain the defined objective, the growth cycles, structure, species, and the extent of pruning to be performed shall be considered.

**6.1.4** Not more than 25 percent of the foliage should be removed within an annual growing season. The percentage and distribution of foliage to be removed shall be adjusted according to the plant's species, age, health, and site.

**6.1.5** When frequent excessive pruning is necessary for a tree to avoid conflicts with elements such as infrastructure, view, traffic, or utilities, removal or relocation of the tree shall be considered.

**6.1.6** Pruning cuts should be made in accordance with section 5.3 *Pruning cuts*.

**6.1.7** Topping and lion's tailing shall be considered unacceptable pruning practices for trees.

**6.2 Structural:** Structural pruning shall consist of selective pruning to improve tree and branch architecture primarily on young- and medium-aged trees.

**6.2.1** Size and location of leaders or branches to be subordinated or removed should be specified.

**6.2.2** Dominant leader(s) should be selected for development as appropriate.

**6.2.3** Strong, properly spaced scaffold branch structure should be selected and maintained by reducing or removing others.

**6.2.4** Temporary branches should be retained or reduced as appropriate.

**6.2.5** Interfering, overextended, defective, weak, and poorly attached branches should be removed or reduced.

**6.2.6** At planting, pruning should be limited to cleaning (7.2).

**6.3 Restoration:** Restoration shall consist of selective pruning to redevelop structure, form, and appearance of severely pruned, vandalized, or damaged trees.

**6.3.1** Location in tree, size range of parts, and percentage of sprouts to be removed should be specified.

**6.4 Vista/view:** Vista/view pruning shall consist of the use of one or more pruning methods (types) to enhance a specific line of sight.

**6.4.1** Pruning methods (types) shall be specified.

**6.4.2** Size range of parts, location in tree, and percentage of foliage to be removed should be specified.

## **6.5 Espalier**

**6.5.1** Branches that extend outside the desired plane of growth shall be pruned or tied back.

**6.5.2** Ties should be replaced as needed to prevent girdling the branches at the attachment site.

## **6.6 Pollarding**

**6.6.1** Consideration shall be given to the ability of the individual tree to respond to pollarding.

**6.6.2** Management plans shall be made prior to the start of the pollarding process for routine removal of sprouts.

**6.6.3** Heading cuts shall be made at specific locations to start the pollarding process. After the initial cuts are made, no additional heading cuts shall be made.

**6.6.4** Sprouts growing from the cut ends of branches (knuckles) should be removed annually during the dormant season.

## 7 Pruning methods (types)

**7.1** One or more of the following methods (types) shall be specified to achieve the objective.

**7.2 Clean:** Cleaning shall consist of pruning to remove one or more of the following non-beneficial parts: dead, diseased, and/or broken branches.

**7.2.1** Location of parts to be removed shall be specified.

**7.2.2** Size range of parts to be removed shall be specified.

**7.3 Raise:** Raising shall consist of pruning to provide vertical clearance.

**7.3.1** Clearance distance shall be specified.

**7.3.2** Location and size range of parts to be removed should be specified.

**7.3.3** Live crown ratio should not be reduced to less than 50 percent.

**7.4 Reduce:** Reducing shall consist of pruning to decrease height and/or spread.

**7.4.1** Consideration shall be given to the ability of a species to tolerate this type of pruning.

**7.4.2** Location of parts to be removed or clearance requirements shall be specified.

**7.4.3** Size of parts should be specified.

**7.5 Thin:** Thinning shall consist of selective pruning to reduce density of live branches.

**7.5.1** Thinning should result in an even distribution of branches on individual branches and throughout the crown.

**7.5.2** Not more than 25 percent of the crown should be removed within an annual growing season.

**7.5.3** Location of parts to be removed shall be specified.

**7.5.4** Percentage of foliage and size range of parts to be removed shall be specified.

## 8 Palm pruning

**8.1** Palm pruning should be performed when fronds, fruit, or loose petioles may create a dangerous condition.

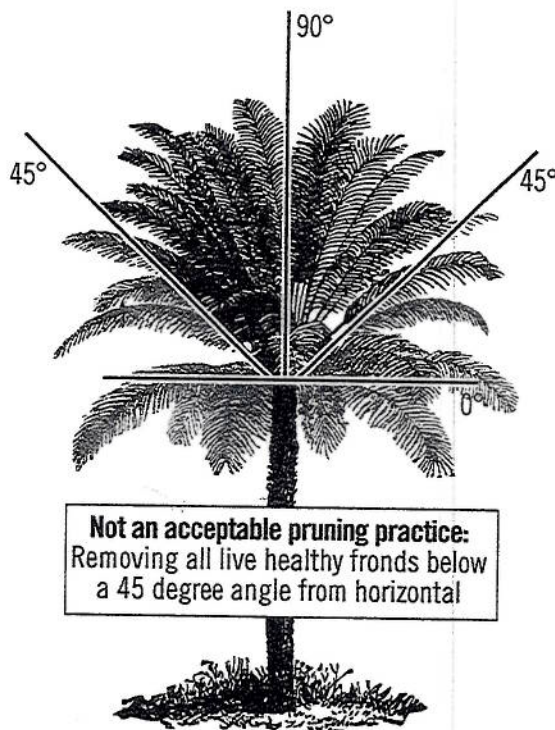
**8.2** Live healthy fronds should not be removed.

**8.3** Live, healthy fronds above horizontal shall not be removed. Exception: Palms encroaching on electric supply lines (see Fig. 8.3a and 8.3b).



Figure 8.3a Frond removal location.





**Figure 8.3b An overpruned palm (not an acceptable pruning practice).**

**8.4** Fronds removed should be severed close to the petiole base without damaging living trunk tissue.

**8.5** Palm peeling (shaving) should consist of the removal of only the dead frond bases at the point they make contact with the trunk without damaging living trunk tissue.

## **9 Utility pruning**

### **9.1 Purpose**

The purpose of utility pruning is to prevent the loss of service, comply with mandated clearance laws, prevent damage to equipment, maintain access, and uphold the intended usage of the facility/utility space while adhering to accepted tree care performance standards.

### **9.2 General**

**9.2.1** Only a qualified line-clearance arborist or line-clearance arborist trainee shall be assigned to

line clearance work in accordance with ANSI Z133.1, 29 CFR 1910.331 – 335, 29 CFR 1910.268 or 29 CFR 1910.269.

**9.2.2** Utility pruning operations are exempt from requirements in subclause 5.1, *Tree Inspection*, for conditions outside the utility pruning scope of work.

**9.2.3** Job briefings shall be performed as outlined in ANSI Z133.1, subclause 3.1.4.

## **9.3 Utility crown reduction pruning**

### **9.3.1 Urban/residential areas**

**9.3.1.1** Pruning cuts should be made in accordance with subclause 5.3, *Pruning cuts*. The following requirements and recommendations of 9.3.1.1 are repeated from subclause 5.3 *Pruning cuts*.

**9.3.1.1.1** A pruning cut that removes a branch at its point of origin shall be made close to the trunk or parent branch, without cutting into the branch bark ridge or collar, or leaving a stub (see Figure 5.3.2).

**9.3.1.1.2** A pruning cut that reduces the length of a branch or parent stem shall be made at a slight downward angle relative to the remaining stem and not damage the remaining stem. Smaller cuts shall be preferred (see Fig. 5.3.3).

**9.3.1.1.3** The final cut shall result in a flat surface with adjacent bark firmly attached.

**9.3.1.1.4** When removing a dead branch, the final cut shall be made just outside the collar of living tissue.

**9.3.1.1.5** Tree branches shall be removed in such a manner so as not to cause damage to other parts of the tree or to other plants or property. Branches too large to support with one hand shall be precut to avoid splitting of the wood or tearing of the bark (see Figure 5.3.2). Where necessary, ropes or other equipment shall be used to lower large branches or portions of branches to the ground.

**9.3.1.1.6** A cut that removes a branch with a narrow angle of attachment should be made from the outside of the branch to prevent damage to the parent branch (see Figure 5.3.8).

**9.3.1.2** A minimum number of pruning cuts should be made to accomplish the purpose of facility/utility pruning. The structure and growth habit of the tree should be considered.

**9.3.1.3** Trees directly under and growing into facility/utility spaces should be removed or pruned. Such pruning should be done by removing entire branches or leaders or by removing branches that have laterals growing into (or once pruned, will grow into) the facility/utility space.

**9.3.1.4** Trees growing next to, and into or toward, facility/utility spaces should be pruned by reducing branches to laterals (5.3.3) to direct growth away from the utility space or by removing entire branches. Branches that, when cut, will produce sprouts that would grow into facilities and/or utility space should be removed.

**9.3.1.5** Branches should be cut to laterals or the parent branch and not at a pre-established clearing limit. If clearance limits are established, pruning cuts should be made at laterals or parent branches outside the specified clearance zone.

#### **9.3.2 Rural/remote locations – mechanical pruning**

Cuts should be made close to the main stem, outside of the branch bark ridge and branch collar. Precautions should be taken to avoid stripping or tearing of bark or excessive wounding.

#### **9.4 Emergency service restoration**

During a utility-declared emergency, service must be restored as quickly as possible in accordance with ANSI Z133.1, 29 CFR 1910.331 – 335, 29 CFR 1910.268, or 29 CFR 1910.269. At such times, it may be necessary, because of safety and the urgency of service restoration, to deviate from the use of proper pruning techniques as defined in this standard. Following the emergency, corrective pruning should be done as necessary.



## Annex B

### Specification writing guideline

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A300 (Part 1)-2008 *Pruning* standards are performance standards, and shall not be used as job specifications. Job specifications should be clearly detailed and contain measurable criteria.

The words "should" and "shall" are both used when writing standards. The word "shall" is used when writing specifications.

Writing specifications can be simple or complex and can be written in a format that suits your company/the job. The specifications consist of two sections.

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#### I. General:

This section contains all aspects of the work to be performed that needs to be documented, yet does not need to be detailed.

Saying under the General section that "all work shall be completed in compliance with A300 Standards" means the clauses covering safety, inspections, cuts, etc. will be adhered to. There is no need to write each and every clause into every job specification.

Other items that may be covered in the General section could be: work hours and dates, traffic issues, disposal criteria, etc.

The second section under Job Specifications would be:

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#### II. Details:

This section provides the clear and measurable criteria; the deliverables to the client.

This section, to be written in compliance with A300 standards, shall contain the following information:

**1. Objective – Clause 6**

These objectives originate from/with the tree owner or manager. The arborist shall clearly state what is going to be done to achieve the objective(s).

Objectives can be written for the entire job or individual trees. Rarely can one or two words clearly convey an objective so that all parties involved (client, sales, crew, etc.) can visualize the outcome.

**2. Method – Clause 7**

Here the method(s) to be used to achieve the objective are stated. Again, depending on the type of job, this can be stated for the individual tree or a group of trees.

**3. Location – Clause 7.2.1, 7.3.2, 7.4.2, 7.5.3**

This is the location in the tree(s) that the work methods are to take place.

**4. Density – Clause 7.3.1, 7.3.3, 7.5.1, 7.5.2, 7.5.4**

This is the amount or volume of parts that are to be removed and can be stated exactly or in ranges.

**5. Size – Clause 7.2.2, 7.3.2, 7.4.3, 7.5.4**

This is the size or range of sizes of cut(s) utilized to remove the volume specified.

**NOTE:** Items # 4 & 5 are directly related to resource allocation, staffing and dollars.

### SAMPLE PRUNING SPECIFICATIONS

**#1. Scope:** Large live oak on west side of pool

**Objectives:** Increase light penetration through east side of tree. Reduce risk potential of 1-inch-diameter branches falling.

**Specifications:** All broken branches and 1-inch-plus diameter dead branches shall be removed from the crown.

The three lowest 8-inch-plus diameter branches on the east side shall be thinned 25 percent with 1-inch- to 3-inch-diameter cuts.

**NOTE:** All work shall be completed in compliance with ANSI A300 and Z133.1 Standards.

## Annex B Specification writing guideline

**#2. Scope:** 1 Arizona ash

**Objective:** Enhance structure/structural development.

**Specifications:** General:

All pruning shall be completed in compliance with A300 Standards.

Detail:

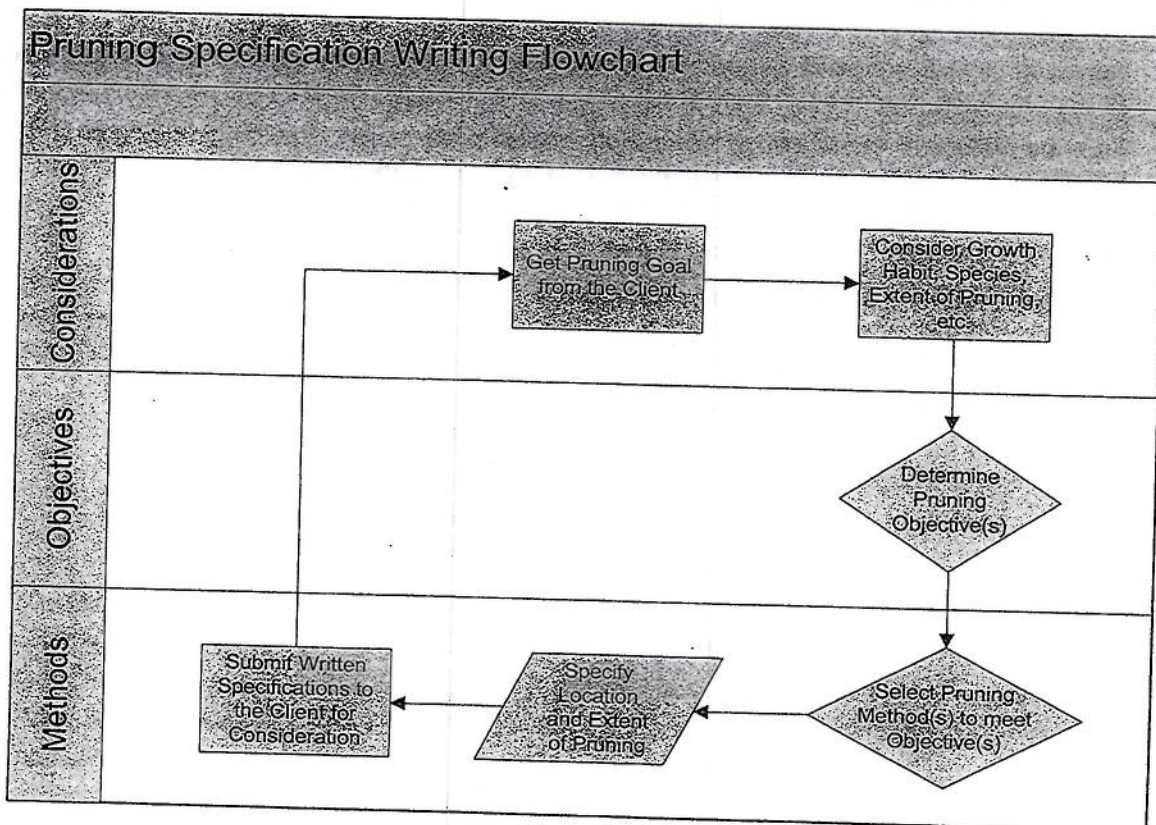
Thin crown 20-25 percent with 1-inch- to 4-inch-diameter cuts. Reduce west codominant leader by approximately 12 feet.

**#3. Scope:** Twenty-three newly installed evergreen elms

**Objective:** Maximize establishment – reduce nuisance while enhancing natural growth habit.

All work shall be completed in compliance with A300 Standards and the following specifications.

- Specifications:**
- Retain as much size as possible and 80-90 percent density of foliage.
  - Lowest permanent branch will be 6 feet above grade in four to five years.
  - Retain all sprout growth originating 18 inches above grade on trunk and 4 inches out from branch attachments throughout crown.
  - Remove weakest rubbing branches.
  - Remove dead branches.
  - Reduce broken branches or branches with dead ends back to live laterals or buds. Heading cuts can be used.
  - Maintain 6 inches behind adjacent edge of walks all growth that originates between 1.5 feet (18 inches) and 6 feet (72 inches) above grade. Heading cuts are acceptable.





## Annex C

### Applicable ANSI A300 interpretations

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The following interpretations apply to Part 1 – *Pruning*:

#### **C-1 Interpretation of “should” in ANSI A300 standards**

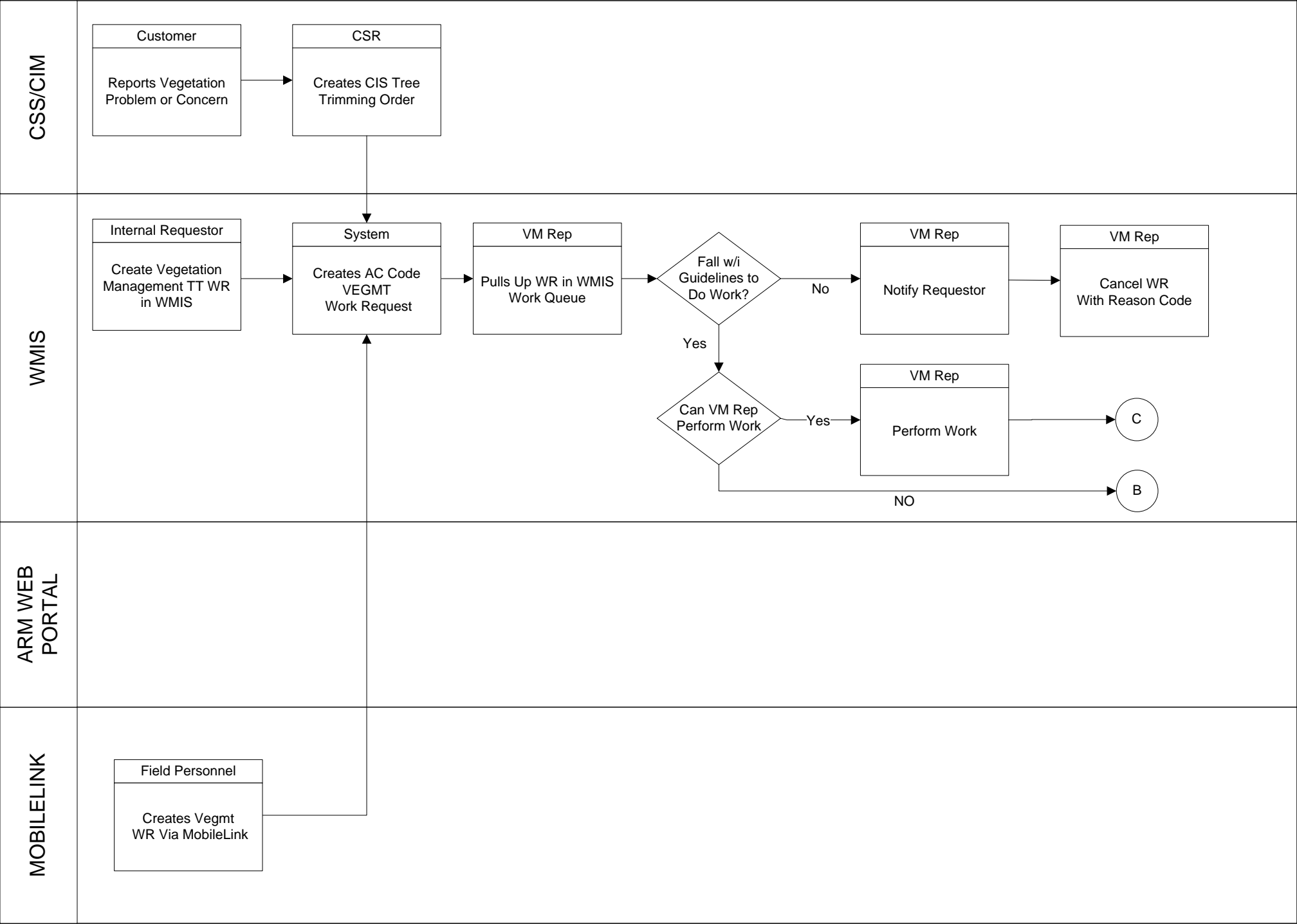
“An advisory recommendation” is the common definition of “should” used in the standards development community and the common definition of “should” used in ANSI standards. An advisory notice is not a mandatory requirement. Advisory recommendations may not be followed when defensible reasons for non-compliance exist.

#### **C-2 Interpretation of “shall” in ANSI A300 standards**

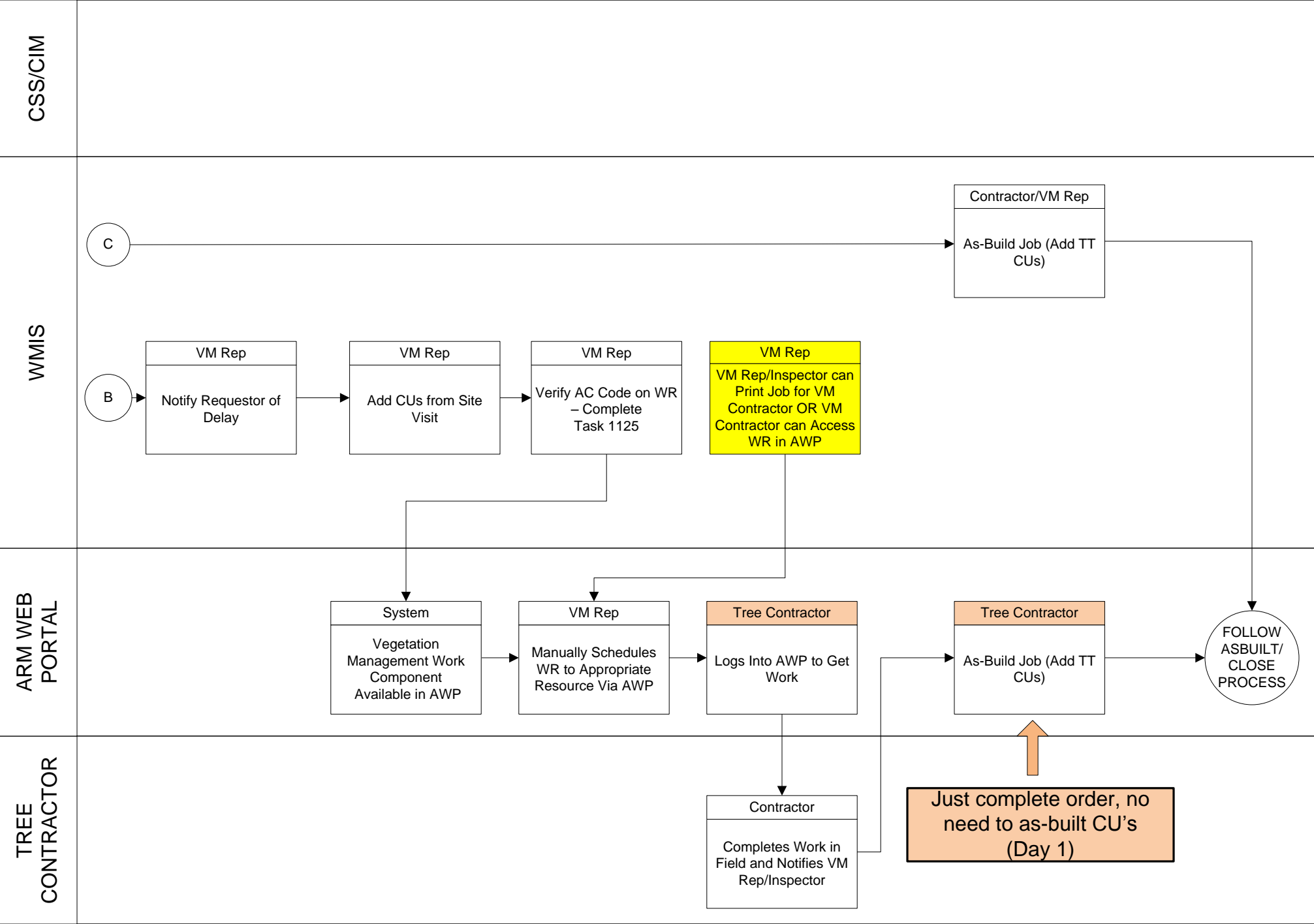
“A mandatory requirement” is the common definition of “shall” used in the standards development community and the common definition of “shall” used in ANSI standards. A mandatory requirement is not optional and must be followed for ANSI A300 compliance.

# **ATTACHEMENT T**

Vegetation Management – Customer Demand Tree Trimming Requests



Vegetation Management – Customer Demand Tree Trimming Requests





# ATTACHEMENT U

# Progress Energy Florida Storm Forensic Analysis Specification

## Description of Services

The purpose of the forensic analysis services will be to collect and analyze damaged facilities and components after a storm event. The results of the analysis should provide correlation of the failed facilities to (1) storm intensity, (2) storm location, (3) facility condition and maintenance history, (4) facility design and vintage.

The forensic analysis requirements consist of four components:

- Post event data collection
- Forensic analysis of collected data
- Correlation of forensic analysis with storm data and GIS data
- Reporting of analysis

## Contractor Qualifications

The forensic analysis contractor must be capable of performing all of the functions listed in the services section of this document. The contractor must have experience in transmission line design and must be geographically located so that they can be quickly mobilized after a storm event. The data collection team should have technical and transmission line design knowledge and have access to failure analysis experts so that the nature and cause of an failures can be analyzed.

## Pre-storm Requirements

When the Storm Coordinator activates the storm plan prior to a storm event, one or more of the Forensic contractors will be notified that their service will be required. The forensic contractor will then mobilize their forensic team and will make preparations to support the forensic data collection requirements. Once the storm event has passed, the forensic contractor will be contacted by the logistic center coordinator and will be directed to affected region storm center where the region storm center coordinator will direct the team to the damaged zones.

## Contracts

PEF will establish contracts with local engineering firms to support the forensic analysis requirements outlined in PSC xxxxxx. Contracts will ensure that upon notification the firm will mobilize a forensic data collection team within 24 hours of the passing of the storm event. Work will be performed on predetermined time and material rates for data collection, data analysis and reporting.

## Post Storm Requirements

### Data Collection

The contractor shall collect sufficient data at the failure sites to determine the nature and cause of the failure. Data collection shall include the following:

- Structure identification
- Photographs
- Sample of damaged components as necessary
- Field technical assessment ( soil conditions, exposure, vegetation, etc)
- Inventory of attachments and guys

### Forensic Analysis

Data and forensic samples will be analyzed to determine the cause and correlating factors contributing to the failure. Analysis will include as required:

- Conditional assessment of failed components
- Structural evaluations
- Failure analysis
- Correlation with storm path and intensity
- Correlation with GIS data

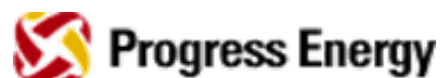
### Reporting

The contractor will prepare a report containing the findings and assessments from the above described analysis. This report shall contain at minimum:

Diagram of storm path and intensity isobars and scatter chart of failed facilities  
Summary table of failed facilities including:

- Type of facility (wood pole, steel tower, etc)
- Vintage
- Maintenance History
- Photographs
- Professional assessment as to cause of failure

# **ATTACHEMENT V**



Comparison of Historical Trends  
Overhead vs. Underground (Adjusted Data)

OVERHEAD INDICES											
SAIDI	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	73.3	74.0	64.9	60.7	62.4	66.6	63.8	71.2	82.5	76.3	63.3
SAIFI											
	1.125	1.155	1.068	0.992	0.986	1.015	0.944	0.986	1.140	0.987	0.880
CAIDI											
	65.2	64.0	60.8	61.2	63.3	65.6	67.6	72.2	72.3	77.4	71.9
L-Bar											
	102.3	101.3	102.1	105.2	106.7	109.7	104.9	115.6	112.7	125.8	112.7

UNDERGROUND INDICES											
SAIDI											
	14.7	11.8	12.0	13.5	12.5	11.9	12.0	11.6	10.8	10.6	10.1
SAIFI											
	0.130	0.111	0.122	0.120	0.107	0.112	0.104	0.092	0.086	0.082	0.075
CAIDI											
	112.9	106.2	98.7	112.8	116.6	105.6	115.2	125.9	126.0	129.8	134.0
L-Bar											
	145.8	141.3	143.7	156.5	155.4	157.2	161.2	169.4	161.3	176.0	182.0

# ATTACHEMENT W





OVERHEAD/UNDERGROUND RELIABILITY (OH/UG) (Initiative 7)  
Section D

2012				
OVERHEAD METRICS	# OF Miles	CMI	CI	L-Bar
	25,227	104,535,581	1,452,975	112.7

UNDERGROUND METRICS	# OF Miles	CMI	CI	L-Bar
	21,311	16,690,188	124,560	182.0

# ATTACHEMENT X

# **Report on Collaborative Research for Hurricane Hardening**

Provided by

The Public Utility Research Center  
University of Florida

To the

Utility Sponsor Steering Committee

February 2013

## **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 Project Sponsors) 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).

PURC manages the work flow and communications, develops work plans, serves as a subject matter expert, conducts research, facilitates the hiring of experts, coordinates with research vendors, advises the Project Sponsors, and provides reports for Project activities. 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 2012.

## **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. Since the state has not been affected by any hurricanes since the database software was completed, there is currently no data. Therefore, future efforts to refine the undergrounding model will occur when such data becomes available.

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 other universities with an interest in the model, though no additional relationships have been established. The researchers that contact PURC all cite the model as the only non-proprietary model of its kind.

The research discussed in last year's report on the relationship between wind speed and rainfall is still under review by the engineering press. Further results of this and related research can likely be used to further refine the model.

### **III. Wind Data Collection**

The Project Sponsors entered into a wind monitoring agreement with WeatherFlow, Inc. Currently, WeatherFlow's Florida wind monitoring network includes 50 permanent wind monitoring stations around the coast of Florida. The wind, temperature, and barometric pressure data being collected at these stations has been made available to the Project Sponsors.

There have been no major impacts from hurricanes since the wind monitoring network was established. Once such an event does occur and wind data is captured, it is expected that forensic investigations of utilities' infrastructure failure will be conducted and overlaid with wind observations to correlate failure modes to wind speed and turbulence characteristics. Project Sponsors and PURC will analyze such data at that time.

### **IV. Public Outreach**

In last year's report we discussed the impact of Hurricane Irene on greater interest in storm preparedness. PURC researchers discussed the collaborative effort in Florida with the engineering departments of the state regulators in Pennsylvania and Maryland. In addition, PURC researchers testified on the collaborative effort in a special session before the office of the Governor of Connecticut. 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. However, the impact of Hurricane Sandy has sparked interest in the research in the states of New York and New Jersey, and

representatives of regulatory and consumer organizations in both states have contacted PURC regarding the research and Florida's collaborative effort.

In August, PURC Director of Energy Studies Ted Kury participated in a teleseminar for state utility regulators sponsored by the National Regulatory Research Institute. During the seminar, he joined other participants in discussing the costs and benefits of relocating power lines underground. He also discussed the state's response to the 2004-05 hurricane seasons and shared lessons from the collaborative experience. In March of 2013, the *Wall Street Journal* will be publishing a special section on pressing energy issues where Kury will be contributing an essay on the costs and benefits of undergrounding.

## **V. 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.

# ATTACHEMENT Y



Document title

# **Distribution System Storm Operational Plan**

Document number

**EMG-EDGF-00042**

**Applies to:** Energy Delivery and Supporting Storm Organizations – Florida

**Keywords:** emergency; distribution system storm operational plan

## **Introduction**

At Progress Energy we believe that people succeed because they act with integrity, collaborate effectively, embrace diversity, and communicate. Not only do they take responsibility for their actions and achieve objectives with speed and agility, they are intolerant of mediocrity and produce results that matter.

As a company our goals are to exceed customer expectations, to deliver superior shareholder value, and to challenge employees to excel. With these goals and principles in mind, we have developed the Distribution System Storm Operational Plan (DSSOP).

This plan provides a blueprint for safely restoring power to our customers in the shortest amount of time following a storm event. Designed with the flexibility to respond to both small and large storms, this comprehensive plan reflects an organizational redesign at Progress Energy-Florida. The storm plan also incorporates internal feedback, suggestions and customer survey responses, documenting and applying the invaluable knowledge gained from experience.

Regions, Operation Centers and supporting storm organizations are responsible for following the storm plan as identified in this document and linked storm support documents. In addition, each storm organization shall maintain an updated storm organizational chart identifying personnel in key storm roles and contact information. When applicable, this information should be inserted into the storm organizations storm folder located on the storm center web site. Operations and Region storm centers are responsible for placing their updated storm organizational charts and contact information on their respective web sites prior to the start of hurricane season. This information should be updated, as needed, throughout the storm season.

## **Built on Experience**

At Progress Energy we have faced more than our share of storms and hurricanes. In 2004, our company received the Emergency Response Award from Edison Electric Institute for "outstanding work under extreme conditions" during the unprecedented four hurricanes that pounded Florida and the Carolinas in August and September of that year. We have received this award a record five times, including our responses to hurricanes Bonnie (1998) and Floyd (1999), the January 2000 winter storm, and the December 2002 ice storm. In 2005, our company received the EEI Emergency Assistance award which recognized our storm restoration efforts in support of outside electrical utilities located in the Southeastern Electric Exchange (SEE).

By applying lessons learned from past events during the 2004 hurricane season, we were able to quickly and efficiently implement best practices, maximize manpower, and reduce damage to equipment. Lessons learned from all past storms and hurricanes have been integrated into this plan, so we may continue to produce results that matter with speed and agility before, during, and after a storm.

## **Plan Overview**

The objective of this plan is to establish a consistent approach and level of responsibility for each emergency response. This document provides the authority and coordination needed to restore electric service and maintain business continuity from emergency storm events. This plan consolidates authority to a System Level "top down" organizational structure for major storm responses and organizational structure for minor storm events.

To make best use of this plan, carefully read and understand this document and the section or sections that apply to your role for your organizations storm plan listed at the back of this document. It is also helpful to read the roles and responsibilities of your interface contacts, identified and hyper-linked in your storm plan. The table of contents, listed on the end of this document provides links to individualized functional storm plans, each of which contains (or will contain in a future revision as information becomes available) a mission statement, functional process and/or sub-process descriptions, flow charts, organization charts, job descriptions, key interface points, checklists of actions, lists of needed tools and information, an inventory of systems used, and links to supplementary information. Storm role codes are provided for each job title.

All Storm Process Owners will be required to certify annually that their storm organizations are prepared for a major storm event. The document below shall be completed, signed and forwarded to the Distribution System Storm Center by May 1 of each year.

#### Storm Organization Certification Form

The DSSOP has been created as a Word document and is posted on the Progress Energy Intranet as a PDF file, making it easy to access, print, and keep on hand.

## **Testing the Plan**

Storm Process Owners are responsible for determining if and when testing is necessary for effective storm plan implementation, prior to the start of storm season. Preparedness and action plans to test their individual organizations can include, but are not limited to:

- Simulated emergency conditions
- Drills
- Communication flow reviews
- Personnel and duties assignment listings review
- Resource listings reviews
- Evaluation of action plan readiness
- Priority circuits and customer listing s review
- Damage assessment plans
- Relevance of forms and reports format review

The Distribution System Storm Center (DSSC) will sponsor and facilitate an annual system level storm drill to test organizational preparedness prior to the start of hurricane season. In addition, the DSSC will sponsor a lessons learned process following the drill to ensure existing storm processes are being institutionalized throughout the organization and gaps in storm planning are identified and resolved.

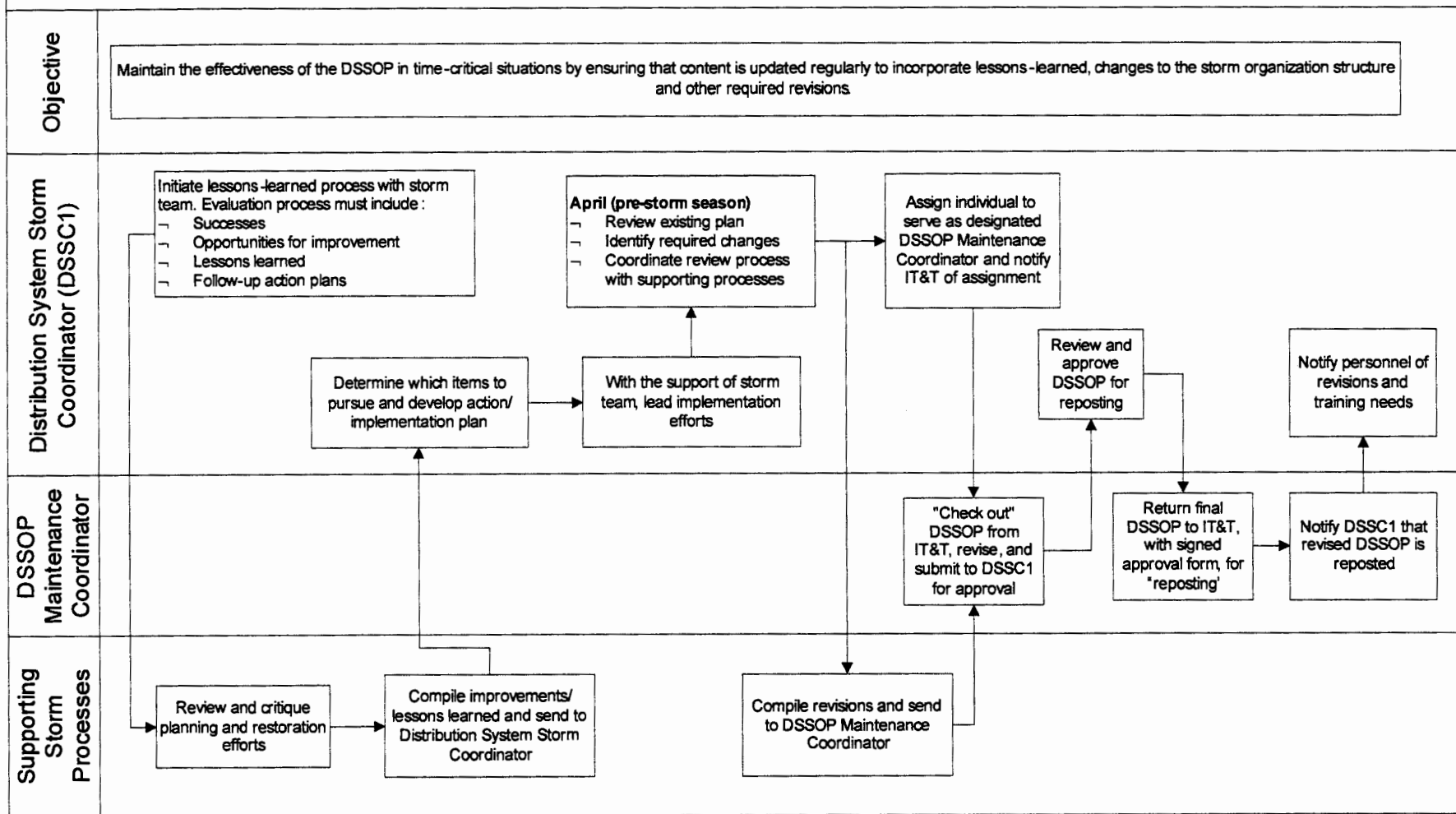
## **Updating the Plan**

The Progress Energy DSSOP is a dynamic document that requires periodic enhancement and regular updates to maintain its effectiveness in time-critical situations. Maintenance of the DSSOP is the responsibility of the Distribution System Storm Coordinator (DSSC1) and is accomplished in the following manner:

### **➤ Updating Key Storm Personnel**

Telephone numbers and personnel assignments shall be updated prior to the hurricane season. In addition, updates should be made as they occur during each storm season. Regions and Operations Centers shall post their updated list of storm personnel and contact information on their respective storm web sites by May 1, with further updates required as personnel transition in and out of the organization.

# Distribution System Storm Operational Plan Update and Maintenance Process



## **Approach to Storm Preparation**

### **Personal Safety**

Personal safety is a shared responsibility of all employees. The safety of our fellow employees as well as the safety of the general public and contract resources is the most important consideration when implementing any major emergency plan:

- Under no circumstances will safety be sacrificed for speed.
- Job briefings are the cornerstone of all work to be performed safely and shall be utilized to identify and mitigate all hazards associated with the work, following appropriate safe work practices.
- No employee shall attempt any restoration activity or establish staging sites where environmental or weather conditions are deemed unsafe.
- Switching and tagging work rules shall be followed at all times, regardless of dispatching authority or control.
- Work at night shall be well planned and organized.

### **Training**

The process owner of each storm organization is responsible for ensuring their personnel are assigned to a response role in the RSVP tool, are trained to the required responsibilities and are able to safely execute their assigned duties.

### **Environmental Stewardship**

Progress Energy has established itself as a good steward of the environment. Environmental concerns such as transformer oil and fuel spills must be reported immediately to the Regional Environmental Lead or Coordinator. Spills should be contained as quickly as possible to mitigate damage to the environment, especially when waterways are at risk.

### **Major Storm**

Damage to facilities may be caused by hurricanes, tornadoes, ice, and other natural causes or disaster, or the damage may be caused by civil disturbances.

The use of the term "Major Storm", as defined by IEEE Std 85901987; section 6.3.2 (page 10), indicates that weather has exceeded design limits of the facilities and results in all of the following:

1. Extensive damage to facilities
2. More than a percentage of customers out of service (10% or above)
3. Service restoration time is longer than a specified time (24 hours or above)

**Note:** Typical industry criteria are 10% of customers out of service and 24 hours or more restoration time. Percentage of customers out of service may be related to a company operating area rather than to an entire company.

There are no specific measures for EXTENSIVE MECHANICAL damage. However, the term does not include electrical damage such as internal failures of transformers or conductors. Extensive refers to the magnitude of damage and the distance over which the damage extends. Therefore, it would be expected that the storm was of sufficient severity to cause damage of an unusual magnitude at multiple locations on the system.

### **Minor Storm**

Daily thunderstorm monitoring and coordination of operation center resources for level 1, level 2 and most level 3 storms are generally controlled by the Region Service Organization (RSO). The RSO facilitates the coordination and management of the Regional Storm Plans by supplying information to the Regional Storm Manager's and local DOM's. Thus, enabling them to make informed decisions with regards to storm restoration within their respected regions.

## Storm Room Standards

Storm rooms or storm centers are the command and control authority while the emergency response plan is in effect. For a system level response, the command and control hierarchy is as follows:

1. System Storm Center
2. Regional Storm Room
3. Operations Center Storm Room

Effective operation of a storm center or storm room is critical to efficient and speedy responses to emergency situations. The following guidelines should be utilized:

### System Storm Center Timeline

### Storm Room Standards

## Planning for Storm Events

### Restoration Priorities

The following guidelines should be utilized by the Storm Process Owners to determine their restoration priorities:

- **Priority 1** – Feeders, lines and service drops for nuclear sirens, hospitals, municipal water & sewer treatment plants and emergency shelters.
- **Priority 2** – Feeders, lines and service drops for law enforcement, fire & rescue stations, central communications centers and food distribution centers.
- **Priority 3** - All other feeders, lines, service drops and equipment.

Paralleling these priorities, are requirements for restoring communications links that facilitate the restoration of electric service. The Energy Delivery Group will assist IT&T by giving reasonable priority to electric facilities serving two-way radio sites, PBX sites, fiber optics and microwave sites, etc. In addition, the Energy Delivery Group will make resources available on a priority basis to support restoring fiber optic cables which carry communications traffic for the Company.

### GIS Data Integrity

Maintaining the data integrity of our distribution information systems is important for day to day operational processes. Construction changes that occur during restoration efforts can negatively impact these information systems if not properly documented. These changes are more economically and efficiently documented at the time the construction change occurred. To avoid the need for a re-verification sweep of an area after the restoration effort has been completed, the Zone/Feeder Coordinator shall document these changes, using the form below, and forward to the local GIS contact.

At the point during a mid-level or major storm (outage volume threshold) where the determination is made by the Person in charge at the ops center, region, or system level as to whether the yards will stay in RTARM or revert to paper during restoration. **Careful thought should be given prior to doing this as it causes a lot of manual work. Each ops center must either be using RTARM or using paper outage tickets. Reverting to paper when RTARM can be used should be the last resort.**

Any crews working on paper outage tickets, PE or contractors, will need to track the assets changed out via the storm procedure and inventory sheets on the link below. These sheets should be printed and carried with the crew.

### GIS Data Form

should be scheduled. All prior hours worked, including travel time, that have not been preceded by an eight hour rest period, should be counted.

- **Crew Utilization:** The Operations Center Resource Management Coordinator is responsible for making sure the location of each crew compliment is tracked during the storm restoration effort. Each off-system crew should have an assigned Feeder/Field Coordinator to monitor their work progress. Each crew lead/foreman should be supplied with the following:
  - Local maps
  - Safety information and instructions
  - Emergency contact list
  - Local emergency facilities locations
  - Staging area maps/directions
  - Assigned feeder one lines

A minimum of 50 crew packages should be stored at each Operations Center. Additional information regarding laundry services, food services and lodging should be included, when applicable.

- **Transferring Crews:** When crews from other areas are in route, the Substation/Zone Coordinator will be given the name of the person in charge, the number of personnel, and the ETA by the Ops Center Resource Management Coordinator. The Substation/Zone Coordinator can then organize them into a work unit and assign a Feeder/Field Coordinator to receive them. The person in charge of the crew will give a list of names and equipment to the Feeder/Field Coordinator. The Feeder/Field Coordinator will verify the list and log the arrival time. Crews will not be released without consent from Substation/Zone Coordinator to do so. When crews are released, the Feeder/Field Coordinator will log their departure time. The Feeder/Field Coordinator in one area may be assigned to deliver the crew to a new Feeder/Field Coordinator in another area. No crews can be released to go off system or travel to another region without the approval and direction from the System Resource Management Group.
- **Working Hours:** Each Storm Process Owner will establish work shifts for those resources assigned to them. In the initial stages of the restoration effort it is general practice to work up to 24 hours, including travel time, without an extended rest period. As the 24 hour threshold approaches, each Process Owner will evaluate the extended response time needed and implement rotational shift assignments for all personnel, as needed. Operation Center Storm Coordinators should make assignments to utilize a minimum of 80% of their assigned work force during daylight and early evening hours and establish an eight (8) hour rest period, where practical, before beginning a new shift.
- **Creature Comforts:** Rooms, laundry service, meals, drinks, etc., will be coordinated through the System Staging and Logistics group by the Process Owners of each storm organization.
- **Vehicles & Equipment:** If crew personnel are lodged for the evening, staging & logistics personnel will identify an area near the lodging establishment for the parking of line vehicles and equipment if the lodging establishment cannot accommodate them. Vehicles and equipment should be safely secured and where possible, security personnel or local police should be asked to patrol the area from time to time to reduce exposure to vandalism or theft.

## **Staging & Logistics - Staging & Mustering Sites**

The efficient staging of vehicles and equipment, and providing personnel with meals, medical care, fuel, material and sleeping quarters directly affects the level of success for any restoration effort.

For all level 4 responses and in some Level 3 responses, the normal line & service facility is not able to coordinate the volume of resources required to restore service. For the Florida Service territory, the Regional Storm Managers are responsible for coordinating the identification of staging sites within their respective areas. Ideally, there should be at least two staging areas identified per Operations Centers; the second being available should the first site be flooded or otherwise not available.



3. All road closing information shall be sent to the System Storm Center contact, which should be associated with the Crew Mobilization Team.
4. Road closing information shall be consolidated at the System Storm Center into one document titled "Road Closings".
5. The Road Closings document shall be posted and updated as necessary on the storm center intranet site under Current Storm Information for use by traveling members of Progress Energy.

## **Post Response Plan and Functions**

- 1) Post Emergency Response Recovery Plan – Once restoration efforts have been completed, the following should be utilized as a guideline for establishing a prioritized work list:
  - Opening points should be identified and corrected to ensure the integrity of GIS and OMS.
  - Primary phasing, recloser status and fuse and transformer size should be verified to ensure the integrity of GIS and OMS.
  - All DIS or GIS construction changes documented during the restoration effort shall be updated in appropriate applications.
  - Vegetation mitigation plan shall be developed and implemented with 10 days of completion of restoration effort.
  - Pending customer revenue work should be evaluated and rescheduled.
  - Missing or damaged streetlight facilities should be identified and scheduled for repair or replacement.
  - Significant amount of missing GIS numbers in an area should be replaced.

The following should be utilized to help establish a recovery plan:

### Post Storm Recovery Plan

2) Clean up Crews - After a major emergency response has been completed, there is often a need to perform "clean-up work". The work consists of straightening leaning poles, re-sagging lines, re-installing or repairing streetlight fixtures, cutting danger limbs and/or trees and correcting any temporary repairs. The best resource that can be utilized for this work may be the off-system contract crews that can be held over. However, the cost of these resources and any mutual assistance agreements should be considered before utilizing them for this work. The Resource Management Team at the System Storm Center shall identify which contract resources are available for being held over and will work with the regional and operations center management team to develop a plan to efficiently complete this work.

3) Tree Removal Policy – When restoring power to customers as quickly as possible after a major event, line and tree crews cut trees and limbs off and away from power lines and equipment and leave the debris laying in place. Progress Energy does not provide tree debris removal during storm restoration. Customers needing downed trees and limbs removed from their property should contact local tree contractors. Also, Progress Energy does not remove any danger trees during storm restoration unless they pose an immediate threat to our facilities.

4) Revenue Customer Callbacks – Normal work activities will be affected when crews are supporting other areas during emergency responses. Customers may understand why their work could be delayed when they see a storm damage their area; however, when the storm hits elsewhere, customers may not readily tolerate delays in regular work caused by deploying local resources to those hard hit areas. To minimize customer concern in these circumstances, proactively call customers when it appears that regularly scheduled work may be delayed. This requires collaborative effort between the Operations Center and the Customer Service Center.

## **Extended Pay Procedures**

The corporate extended pay policy can be applied to major storm and other system level emergency work. If applicable, these procedures will be initiated and implemented by the Storm Accounting Team in the Florida service territory and Business Operations in the Carolina service territory.

Document title

# Distribution System Storm Center

Document number

**EMG-EDGF-00043**

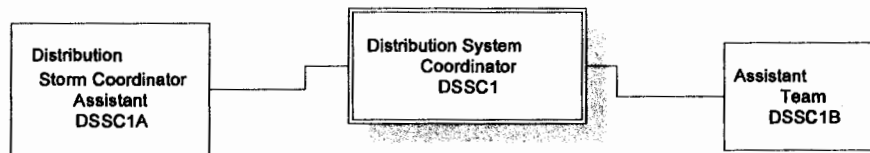
Applies to: Energy Delivery – Florida

Keywords: emergency; distribution system storm operational plan

## Mission

The Distribution System Storm Center (DSSC) will provide a centralized storm organization to efficiently support system level restoration efforts. The following organization chart reflects the individual supporting storm organizations represented at the DSSC.

## Organization Chart





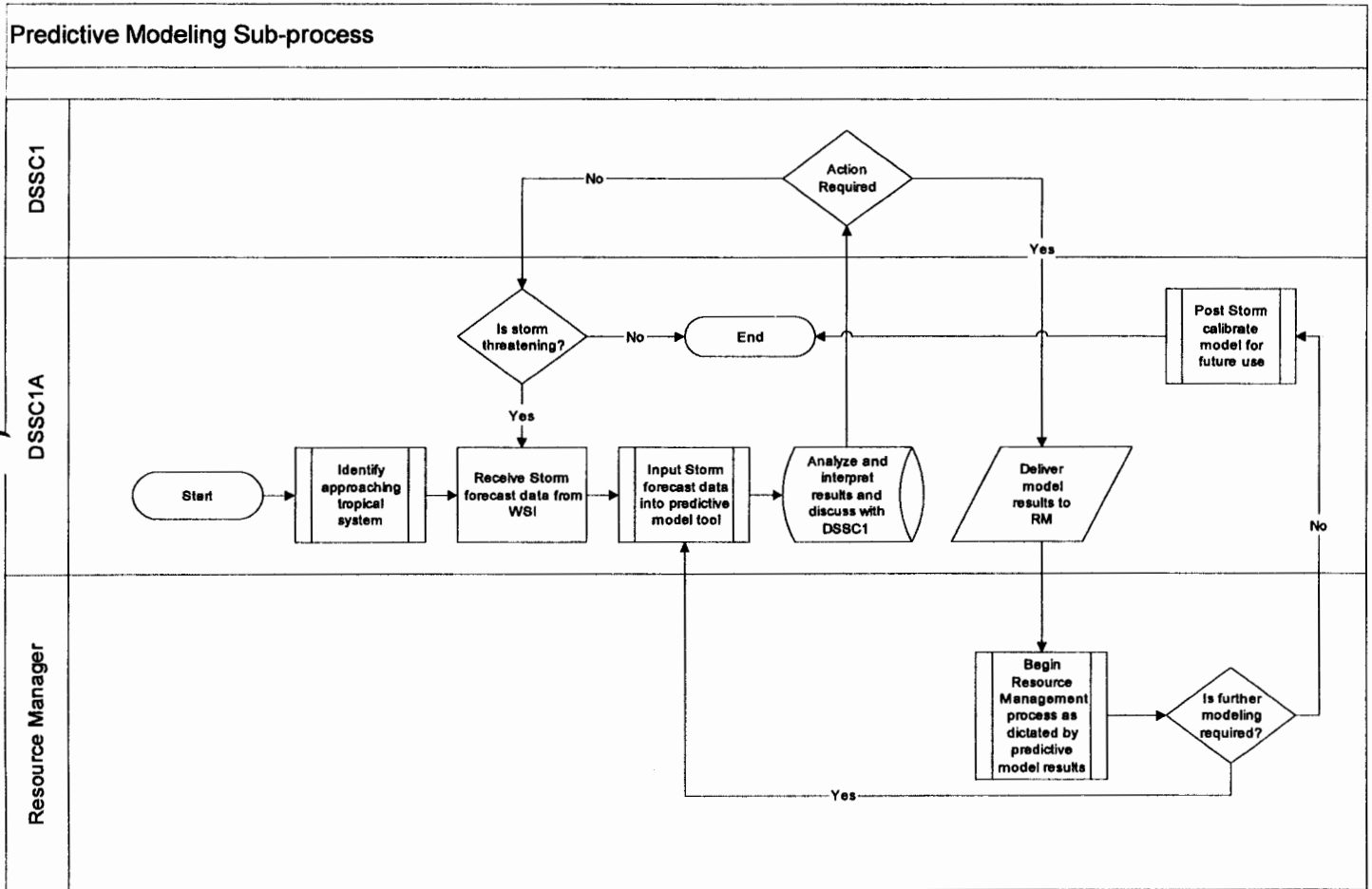
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**The following personnel are engaged in this sub-process:**

- 10

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Predictive Modeling Sub-process



**During Major Storm**

- Facilitate conference calls
- Facilitate and track restoration goal performance – mitigate issues
- Provide updates to Senior management

**After Major Storm**

- Facilitate release of off-system resources
- Sponsor storm restoration summaries
- Sponsor lessons learned request from process owners
- Verify results of lessons learned has been documented and institutionalized

**Engaged in the Following Sub-processes:**

- DSSC Major Storm Preparation
- DSSC Activation

**DSSC1A – Distribution System Storm Coordinator Assistant**

**Job Function**

The Distribution System Storm Coordinator Assistant is responsible for coordinating the activation of the system storm room and providing direct support to the Distribution System Storm Coordinator (DSSC1) for major storm restoration efforts.

**Job Description**

- Understand the Corporate Storm Plan (EMG-EDGX-00010) and the Distribution System Storm Operational Plan (EMG-EDGF-00042)
- Is the DSSOP Maintenance Coordinator
- Generate predictive resource model based on the Weather Service Provider wind projections
- Facilitate system storm preparations prior to storm season
- Lead Distribution System Storm Center activation and de-activation
- Schedule and participate in the Regional Storm Manager and System Conference calls
- Engage the Weather Service Provider for storm tracking, wind and precipitation projections
- Develop and issue system notifications for impending storms, on-system storm restoration efforts and off-system support through the mutual assistance agreement
- Collect storm restoration summary data and prepare system storm presentations
- Facilitate lessons learned after each storm and incorporate into storm plans
- Present Major Storm Plan presentation for New Employee Orientation meetings

**Training Requirements**

- Visio Professional (organizational and functional flowcharting)
- Excel
- Microsoft Word

**Engaged in the Following Sub-processes:**

- DSSC Major Storm Preparation
- DSSC Activation

**DSSC1B – Assistant Support Team**

**Job Function**

This group of employees will assist the DSSC to function efficiently and support timely and accurate communications between the DSSC and supporting storm organizations.

**Job Description**

The Support Team may be made up of employees with engineering, managerial and administrative skills. They are responsible for supporting the DSSC1 and DSSC1A for a timely and efficient activation and de-activation of the DSSC.

**Checklists of Actions**

- Develop the predictive damage model based on current wind, rain and storm surge data.
- Communicate the predictive model to Resource Management to assist in advanced resource mobilization planning.
- Ensure current wind, rain and storm surge projections are communicated to the Regional General Managers, Resource Management and Staging & Logistics.
- Assist with monitoring the System Storm Center email box.
- Assist with manning the system storm center phone lines

**Systems**

OMS

Predictive Resource Model

Resource Link

Resource Storm Volunteer Program (RSVP tool)



Document title

# Staging and Logistics

Document number

**EMG-EDGF-00044**

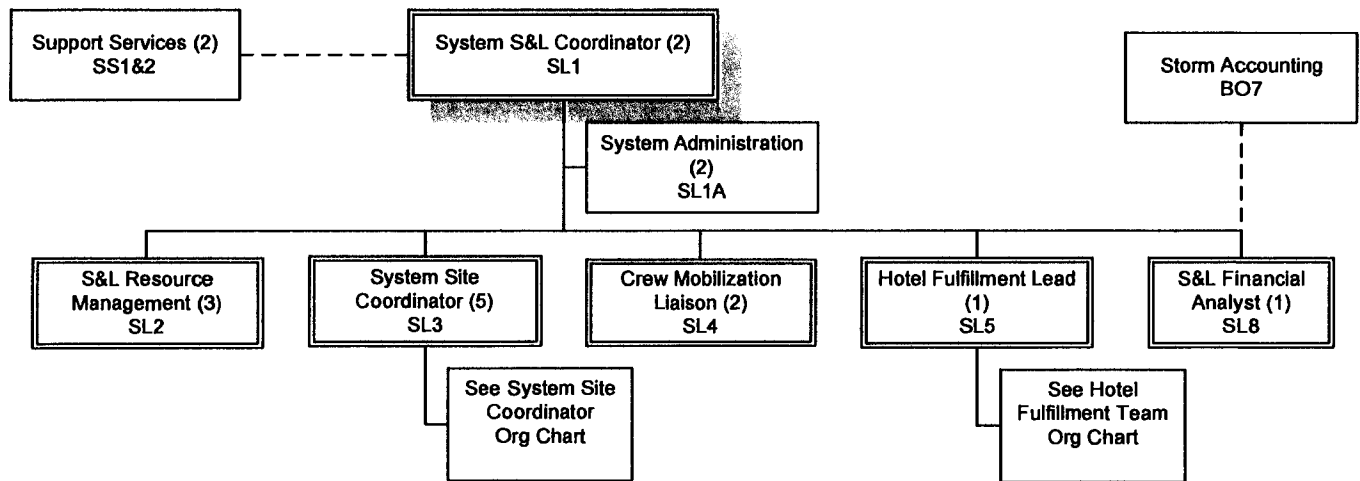
Applies to: Energy Delivery Group – Florida

Keywords: emergency; distribution system storm operational plan; corporate emergency and storm response plans; ERS

## Mission

Staging and Logistics (S&L) mobilizes, demobilizes, and provides daily management of staging sites needed to support external crews, on-system and off-system internal crews, and other personnel during a major storm restoration effort.

## System S&L Storm Organization Chart



## **Staging & Logistics Sub-Processes**

The S&L functional process includes the following sub-processes:

- Hotel Procurement
- Staging Site Mobilization and Demobilization
- Daily Staging Site Management

### **Hotel Procurement Sub-Process**

This sub-process acquires and cancels hotel rooms for crews and other support personnel based on requests from the Fulfillment Team.

The following personnel are engaged in Hotel Procurement:

- Acquisition Lead (SL5A)
- Hotel Acquisition Coordinator (SL5A1)
- Acquisition Team (SL5A1A)
- Fulfillment Team (SL5B)

#### **Acquisition Lead (SL5A)**

- Coordinate/troubleshoot activities with Hotel Fulfillment Lead
- Instruct Hotel Acquisition Coordinator and RSVP Volunteers to prepare for possible deployment
- Manage the daily activities of the Storm Travel Team and report to Hotel Fulfillment as necessary

#### **Hotel Acquisition Coordinator (SL5A1)**

- Instruct RSVP volunteers on hotel reservation/hotel cancellations from Hotel Fulfillment
  - Review requests for completeness→ Contact Hotel Fulfillment with questions
- Give hotel reservation/hotel cancellations to appropriate RSVP Volunteer
- Receive completed hotel reservations/hotel cancellations from RSVP Volunteer
  - Review form for completeness→ Contact RSVP Volunteer with questions
- Ensure completed requests are submitted in the Storm Hotel Reservation system to Hotel Fulfillment

#### **Acquisition Team (SL5A1A)**

- Receive hotel reservations/hotel cancellations from Hotel Acquisition Coordinator
- Locate, call, and book/cancel hotel rooms using Hotel Prioritization listings
- Complete hotel reservations/hotel cancellations
- Return completed hotel reservations/hotel cancellations to Tool Administrator

#### **Hotel Fulfillment Team (SL5B)**

- Receive data from Hotel Fulfillment Lead with number of hotel beds required for crews and support personnel
- Complete and submit Hotel Reservation Request Form/ Hotel Cancellation Request Form to Hotel Acquisition
  - Hotel Reservation Request is identified by Staging Site/Operation Center/City
  - Hotel Cancellation Request is identified by Staging Site/Operation Center/City including Hotel Name
- Assist Staging Site Hotel Representative with questions and process of acquiring Hotel Lists from the Hotel Tool.

The flowchart below provides a detailed view of this sub-process:

## **Staging Site Mobilization and Demobilization**

This sub-process provides direction for the mobilization and demobilization of staging sites during a major storm restoration effort.

The following personnel are engaged in Staging Site Mobilization and Demobilization:

- System S&L Coordinator (SL1)
- System Site Coordinator (SL3)
- S&L Resource Manager (SL2)
- S&L Regional Coordinators (SL6)
- Staging Site Coordinators (SL7)

## **Staging Site Mobilization Process**

### **System S&L Coordinator (SL1)**

- Notify Supporting Storm Organizations and System S&L Team that company is on *storm watch* and to begin preparation for possible deployment.
- Conduct System S&L Storm call and coordinate communication with Supply Chain
  - Sites to be opened
  - Estimated number of outside resources

### **System Site Coordinator (SL3)**

- Request initial site complement from Supply Chain via Staging Site Request Form. Includes:
  - Site rental car needs
  - Initial site security needs
  - Initial site set up needs
- Act as liaison between Supply Chain and S&L Regional Coordinators
- Address additional site needs and communicate with S&L Regional Coordinators and Staging Site Coordinators

### **S&L Resource Manager (SL2)**

- Instruct Staging Site Coordinators to prepare for possible deployment and determine availability of their team members
- Assign Staging Site Coordinators to activated staging sites
- Deploy S&L Staging Site teams to activated staging sites
- Track Resource Movement within S&L

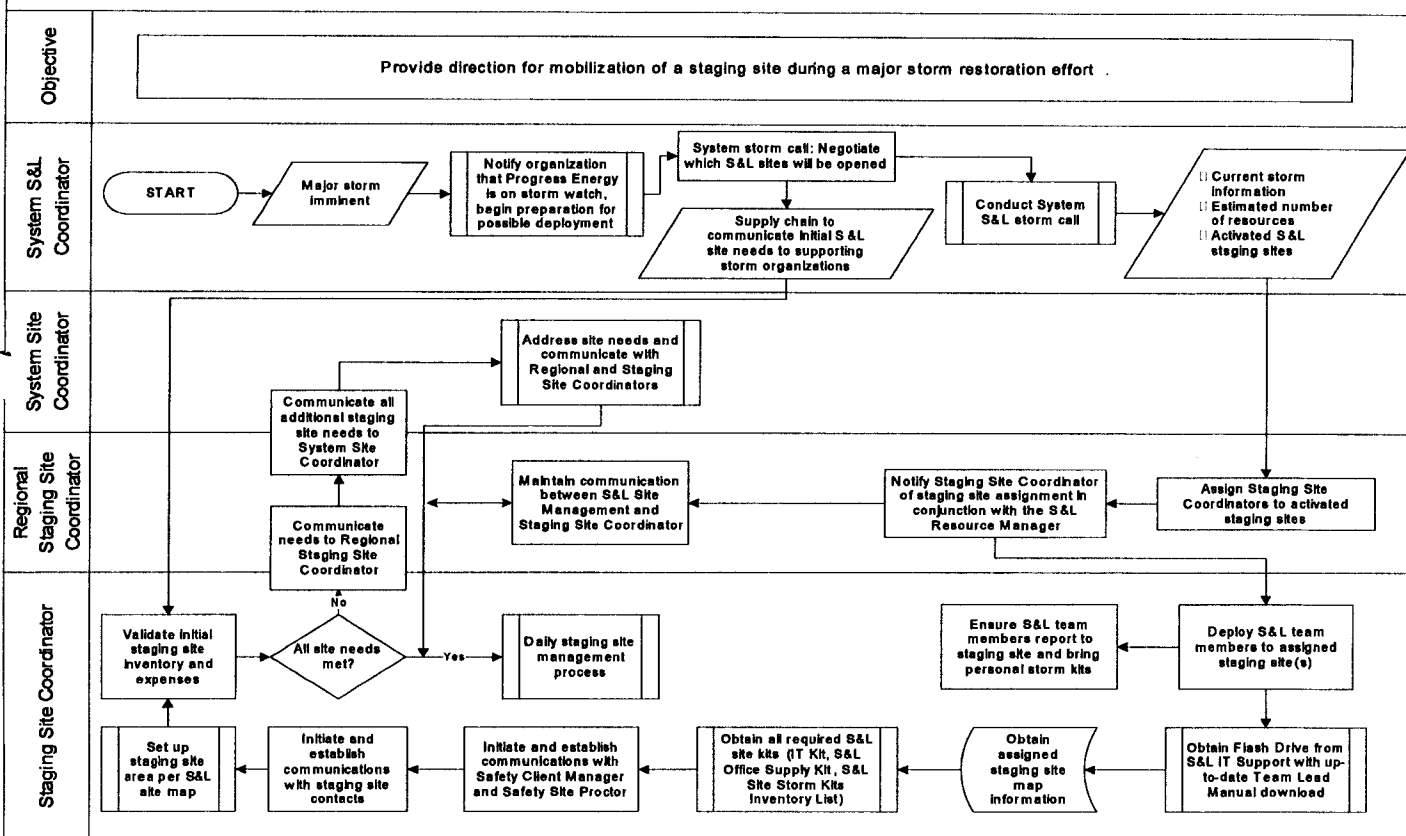
### **S&L Regional Coordinators (SL6)**

- Communicate additional Regional staging needs to the System Site Coordinator (see Staging Site Request form for asset list)
- Mitigate issues and ensure Regional needs are being met

### **Staging Site Coordinators (SL7)**

- Initiate and establish communications with S&L Site team members
- Obtain Flash Drive from S&L IT Support with up-to-date Team Lead Manual download
- Obtain assigned S&L Staging Site Map information
- Obtain all required S&L Site Kits (IT Kit, Office Supply Kit, Site Safety Kits )
- Initiate and establish communications with S&L Staging Site contacts
- Set-up S&L Staging Site area per S&L Site Map
- Ensure S&L team members report to S&L Site and bring Personal Storm Kits
- Initiate and establish communications with Safety Client Manager and Site Safety Proctor
- Initiate and establish communications with on-site Security Liaison
- Maintain communications with Regional S&L Coordinator
- Validate initial S&L Staging Site inventory and expenses

# Staging Site Mobilization Sub -process



## Daily Staging Site Management

This sub-process provides staging and logistical support for external crews (Transmission, Line and Tree) involved in system restoration after a major storm event. The objective is to manage the staging site efficiently and effectively, demonstrating proper process flow for daily operation.

The following personnel are engaged in Daily Staging Site Management:

- Staging Site Coordinator (SL7)
- Regional Staging Site Coordinator (SL6)

### Staging Site Coordinators (SL7)

- Meet with Safety Proctor daily to ensure S&L team members are wearing necessary PPE and following all Safety guidelines
- Maintain communications with Regional S&L Coordinator
- Track daily S&L Staging Site inventory and expenses
- Ensure following forms are completed:
  - Timesheets
  - Bus Log
  - Staging Site Tool
  - Storm Card Expense Reconciliation Form
  - Hotel Tracking Form
  - Crew Check In Form
- Manage staging team member assignments and duty schedules
- Maintain communications with Site Hotel Representative to monitor hotel activity and ensure site hotel needs are met
- Coordinate with S&L Staging Site Caterer to establish meal counts
- Coordinate fuel procurement
- Obtain early estimates of crew movement throughout the restoration process
- Validate accuracy of Resource Link Reports throughout the day and report inconsistencies to Crew Mobilization Liaison, if needed
- Daily communications with Staging Site owner to manage expectations and relationships
- Ensure S&L site area is cleaned twice daily
- Participate on daily System S&L calls
- Track rental vehicles on site
- Track cells/radios and satellite phones used by team members
- Maintain contact with site security

### S&L Regional Coordinators (SL6)

- Maintain contact with Staging Site Coordinators daily to ensure site needs are met based on regional matrixes
- Maintain contact with System S&L Site Management to relay needs of staging sites

The flowchart below provides a detailed view of this sub-process:

## **Job Descriptions**

### **SL1: System S&L Coordinator**

#### **Job Function**

The System S&L Coordinator (SL1) manages all S&L job functions, ensuring all S&L field needs are met for both on system and off system storm response.

#### **Job Description**

- Manage S&L Timeline Checklist
- Participate in all Operational Calls, System Storm Calls, S&L Calls
- Negotiate number of staging sites to be opened with Distribution Storm Center Coordinator (DSSC1) and Regional Storm Managers (REG1)
- Receive staging site request and notify System S&L of which sites will be activated
- Notify S&L Resource Managers to deploy S&L teams

#### **Key Interface Points**

- Distribution System Storm Coordinator (DSSC1)
- Region Storm Managers (REG1)
- Resource Mobilization (RM1)
- Support Services (SS1) (SS2)
- S&L Regional Coordinator (SL6)
- Staging Site Coordinators (SL7)
- System Administration (SL1A)
- S&L Resource Management (SL2)
- System Site Coordinator (SL3)
- S&L Crew Mobilization Liaison (SL4)
- Hotel Fulfillment Lead (SL5)

#### **Checklist of Actions**

This timeline is designed for a major hurricane entering our area. Smaller events would require timing of some activities to be adjusted. A near miss could require timing adjustments on some activities and cancellation of others.

#### **PRE-STORM SEASON**

Direct completion of all annual preparatory activities by S&L Process Owners:

- Annual Staging Site Maintenance & Acquisition Process – System Site Coordinator
- Annual S&L Org Chart Review & Update – S&L Resource Manager
- Update Op Center Contact List and Catering List – S&L Op Center Liaison
- Participate in Distribution System Storm Drill – All
- Update Hotel List – Hotel Fulfillment Lead
- Complete Storm Org Certificate – S&L Resource Manager
- Update DSSOP – System Administration
- Update training modules and ensure S&L member completion of annual training and site team meetings – System Administration

#### **BEFORE MAJOR STORM**

##### **5 Days (120 HRS) Prior to the Storm**

- Make contact and coordinate with Resource Mobilization (RM1) when opening storm center and ensure S&L Crew Mobilization Liaison (SL4) is included in all Resource Mobilization storm calls
- Monitor current weather reports
- Participate on Operational Calls and System Storm calls



**SL1A: System Administration A & B****Job Function**

System Administration (SL1A) is responsible for all administrative duties assigned by the System S&L Coordinator (SL1).

**Job Description****System Administration A**

This position will:

- Participate in all S&L storm conference calls and publish meeting notes
- Distribute Storm Charging Information to System S&L
- Oversee submission of time and storm card estimates from System Administration B to S&L Financial Analyst (SL8)
- Assist with S&L System Storm Room set-up
- Schedule all S&L conference calls and meetings
- Assist System S&L Coordinator (SL1), S&L Resource Management (SL2), System Site Coordinator (SL3), S&L Crew Mobilization Liaison (SL4), S&L Financial Analyst (SL8) as needed
- Provide task direction to Operations Center Liaisons (SL3A) and S&L IT&T Liaison (SL3B)
- Collect and track S&L Lessons Learned at system level

**System Administration B**

This position will:

- Participate in all S&L storm conference calls
- Provide S&L time estimates and storm cost estimates to S&L Financial Analyst (SL8)
- Assist with S&L System Storm Room set-up
- Assist S&L Financial Analyst (SL8), as needed
- Collect S&L Lessons Learned throughout storm restoration efforts
- Input and process all EIT Storm Time Entry
- Process all S&L Storm Card Transactions through Concur System daily

**Key Interface Points**

- System S&L Coordinator (SL1)
- S&L Resource Management (SL2)
- System Site Coordinator (SL3)
- S&L Crew Mobilization Liaison (SL4)
- Operations Center Liaison (SL3A)
- S&L IT&T Liaisons (SL3B)
- S&L Financial Analyst (SL8)
- Storm Accounting (BO7)

**Checklist of Actions****PRE-STORM SEASON**

Project Manage all annual preparatory activities by S&L Process Owners:

- Begin Annual Staging Site Maintenance & Acquisition Process – System Site Coordinator
- Annual S&L Org Chart Review & Update – S&L Resource Manager
- Update Op Center Contact List and Catering List – S&L Op Center Liaison
- Participate in Distribution System Storm Drill – All
- Update Hotel List – Hotel Fulfillment Lead
- Complete Storm Org Certificate – S&L Resource Manager

**SL2: S&L Resource Management**

**Job Function**

S&L Resource Management (SL2) acts as the single point of contact to primarily address assigning personnel to the positions that best utilize their skill sets during storm restoration activities. Peacetime responsibility is imperative.

**Job Description**

This position will:

- Administer process to recruit and deploy resources by matching skill sets to S&L roles and responsibilities
- Develop the annual organizational chart, review and receive input from the System S&L Coordinator (SL1)
- Ensure that all S&L resources have reviewed their storm roles, collect/track written confirmation of their understanding, and provide System S&L Coordinator (SL1) with list of confirmations
- Provide current personnel list for specific job training to S&L System Administration A (SL1A)
- Responsible for recruiting in peacetime for S&L members from current PEF personnel, i.e. Plants as well as company retirees
- Monitor department organizational chart to ensure all new employees and new employee positions are assigned a storm assignment
- Maintain employee roles within the RSVP tool
- Partner with System Site Coordinator (SL3) to determine S&L resources needed to manage a particular site
- Acquire/track/access need for S&L prior to and during storm restoration
- Identify available resources to open requested staging sites as requested by the System S&L Coordinator (SL1)
- Maintain S&L contact list and org chart
- Maintain and monitor RSVP tool during storm for the purposes of tracking teams and team movement
- Provide & post daily update of staging site locations and statistics to the storm website

**Key Interfaces:**

- System S&L Coordinator PEF/PEC (SL1)
- Plants - FL
- Regional Site Coordinators (SL6)
- RSVP Coordinator (RM5)
- Retiree's Organizations -FL (newsletter, luncheon, meetings)
- Guidant

**Check List of Actions**

**PRE-STORM SEASON**

- Participate in RSVP pre-season "refresher" training
- Pull updated S&L resource list from RSVP
- Assign any new resources to S&L Org Chart
- Update S&L Org Chart, S&L Contact List, and S&L Distribution lists with new resources
- Update the Family Preparedness Document
- Ensure employee and contractor contact information is updated in PeopleSoft and RSVP Tool

**BEFORE MAJOR STORM**

**4 Days (96 HRS) Prior to Storm**

- Develop resource plan based on level of storm expected
- Advise Staging Site Coordinators (SL7) to verify availability of team members
- Report to System S&L Coordinator (SL1) availability to open # of sites

**3 Days (72 HRS) Prior to Storm**

- Adjust resources based on potential number and location of sites

### **SL3: System Site Coordinator**

#### **Job Function**

The System Site Coordinator (SL3) is the primary contact for S&L Regional Coordinators (SL6) and Transmission to address S&L Site concerns while implementing best practices at sites throughout the system during storm restoration activities.

#### **Job Description**

- Participate on all S&L conference calls
- Oversee execution of all S&L Site processes and identify any gaps; address gaps
- Coordinate with Transmission S&L to determine co-location opportunities
- Collaborate with Distribution and Regional Coordinators to calculate S&L Site capacities for maximum personnel and equipment at activated sites
- Track lessons learned to identify S&L process improvement opportunities through field visits to activated S&L Sites

#### **Key Interfaces**

- System S&L Coordinator (SL1)
- S&L Regional Coordinator (SL6)
- Staging Site Coordinator (SL7)
- System Administration (SL1A)
- Transmission S&L
- System Security Liaison (SEC1)
- Support Services (SS)

#### **Check List of Actions**

##### **PRE-STORM SEASON**

- Initiate and establish communications with Regional Utilization Coordinator (RUC's), S&L Regional Coordinators (SL6) and CIG representative to coordinate mapping of potential new S&L Sites
- Collect S&L Site information from RUC's and update Team Lead Manual:
  - HHA
  - Site Maps
  - Site Survey Rating
  - S&L Site Contact information
- Develop and post S&L Site Map information on S&L Storm Page
- Develop and post S&L Site Roles and Responsibilities on S&L Storm Page
- Coordinate with Transmission S&L to update co-habitation S&L Site information in Team Lead Manual:
  - Crew capacities
  - Parking
  - Support

##### **BEFORE MAJOR STORM**

##### **4 Days (96 HRS) Prior to Storm**

- Initiate and establish communications with:
  - System S&L Coordinator (SL1)
  - S&L Regional Coordinators (SL6)
  - System Security Liaison (SEC1)
  - Staging Site Coordinators (SL7)
  - Transmission S&L
  - Support Services (SS)

**Measures of success**

- No safety related incidents
- Best practices implemented real time across all S&L Sites
- Capitalize on 100% of opportunities to site co-locate with Transmission where applicable

**Documents/forms needed to perform functions**

- S&L Roles & Responsibilities
- S&L Team rosters
- Transmission Team rosters
- S&L Mustering & Staging Site maps
- Staging and Logistics site information and contact list
- Resource Link Reports
- Email/ Post Spread Sheets/Budget Forecast Tool
- Staging Site Request Form
- Security Request Form
- Termination of Security Form
- Rental Vehicle Tracking Form

**Primary support location where employee works from:**

- System Storm Center

**Training Requirements**

- Job shadow experienced System Site Coordinator (SL3) for a period of one active storm season

**1 Days (24 HRS) Prior to Storm**

- Assist in set up of System S& Storm Room
- Prepare families and homes for potential deployment

**DURING MAJOR STORM**

- Contact Operations Centers to establish/determine catering needs in the event that there is severe damage in the area and local caterers are not able to respond or if they will be serving at least 50 people
- Arrange for all System Storm Room meals
- Support System Administration (SL1A)

**AFTER MAJOR STORM**

- Reconcile storm card statements and receipts
- Support System Administration (SL1A)

**Tools and Information Needed**

- Operation Center Questionnaire
- Operation Center Contact List
- Preferred Catering Contact List
- Local Hotel List
- Sample Communications

**Training Requirements**

- Training and direction received from System Administration (SL1A)

**Tools and Information Needed**

- Phone
- PC/Laptop
- Fax
- Printer
- Copier

**Training Requirements**

- All training and direction provided by System Site Coordinators (SL3) and System Administration (SL1A)



**1 Day (24 HRS) Prior to Storm**

- Participate in pre-storm System S&L conference calls
- Participate in pre-storm Resource Mobilization conference calls
- Monitor Resource Link for early crew projections

**DURING MAJOR STORM**

- Closely monitor crew mobilization activity
- Obtain early estimates of crew movement throughout the restoration process
- Ensure the timely flow of crew movement information
- Monitor the update process of the Resource Link Tool
- Interface with System Resource Management (RM1), Hotel Fulfillment Lead (SL5), S&L Regional Coordinators (SL6) and Staging Site Coordinators (SL7)
- Represent crew mobilization on S&L team calls

**Methods of performing job duties**

- Voice and E-mail communications
- Participating in System S&L Storm calls

**Measures of success**

- Timely flow of crew mobilization information to S&L teams

**Documents/forms needed**

- Resource Link Tool
- Crew Rosters
- S&L site information and contact list
- Staging and Mustering site maps

**Primary support location where employee works**

- System S&L Storm Room

**AFTER MAJOR STORM**

- Ensure room cancellations are adequately processed to minimize unnecessary costs

**Tools and Information Needed**

- Florida State, Regional, and Storm Tracking maps
- Reports from Crew Mobilization Liaison (SL4) via Resource Link tool
- S&L mustering and staging site maps
- Storm Web page, voice, fax, e-mail, and face-to-face communications
- System S&L storm conference calls
- Hotel Tool

**Engaged in the Following Sub-process:**

- Hotel Procurement

**SL5A1: Acquisition Coordinator**

**Job Function**

The Acquisition Coordinator (SL5A1) serves as the liaison between the Fulfillment Team (SL5B) and the Acquisition Team (SL5A1A) in the process of securing hotel rooms for crews supporting system storm restoration activities.

**Job Description**

- Manage the Acquisition Team Storm Room for incoming request
- Receive hotel requests from Fulfillment Team
- Communicate and oversee the booking of rooms by RSVP Volunteers
- Assist with booking/cancelling of rooms, as needed

**Key Interface Points**

- Fulfillment Team (SL5B)
- Acquisition Team (SL5A1A)
- Acquisition Lead (SL5A)

**SL5B: Fulfillment Team****Job Function**

The Fulfillment Team (SL5B) receives data from the Hotel Fulfillment Lead (SL5) with accurate number of beds needed to accommodate crews, contractors, S&L teams, and support personnel.

**Job Description**

- Represents Distribution and collaborates with Transmission regarding Regional hotel concerns at a System level
- Liaison role between: Hotel Fulfillment Lead (SL5), Staging Site Hotel Representative (SL7C), and Acquisition Coordinator (SL5A1)
- Communicates with staging sites for issues and resolution
- Collects data for financial impact to decisions on bed reservations
- Track, confirm, and submit bed counts thru the Hotel Tool
- Identify requests by Staging Site/Operation Centers/Cities
- Cancellations to include pertinent information including Hotel Name and Bed Count
- Manage any issues that develop with acquired rooms

**Key Interface Points**

- Hotel Fulfillment Lead (SL5)
- Acquisition Coordinator (SL5A1)
- S&L Financial Analyst (SL8)

**Checklist of Actions****Before Major Storm**

- Setup Fulfillment Storm Room in System Storm Center. This includes necessary files, cabinets, office tools, and blank copies of all forms. Communicate with S&L IT&T Liaison for computers, faxes, phones as needed, etc.

**During Major Storm**

- Communicate with each staging site when needed
- Track, confirm, and submit bed counts using the Hotel
- Identify requests by Staging Site/Operation Centers/Cities, Cancellations to include Hotel name
- Assists Hotel Staging Site Representatives (SL7C) with acquiring hotel information through the Hotel Tool and resolving staging site issues

**After Major Storm**

- Submit cancellation requests as determined by Hotel Fulfillment Lead (SL5) Verify all cancellations have been processed

**Tools and Information Needed**

- Hotel Storm Tool
- Hotel Reservation Request Form
- Hotel Cancellation Request Form
- Laptop
- Printer

**Training Requirements**

- Extensive Excel, flexibility and stress tolerance, and managing multiple project skills
- Training and Updating of Hotel Storm Tool annually (including contacting hotels to negotiate rates and update pertinent information needed in Hotel Tool, i.e. contact information, number of beds, parking)

- Participate in pre-storm System S&L Storm conference calls
- Become familiar with and set up of storm mail boxes
- Ensure staging sites activated have been notified

**Days (24 HRS) Prior to Storm**

- Participate in pre-storm System S&L Storm conference calls
- Ensure pre-storm measures have been taken to protect/prepare family and home
- Finalize plans for staging areas – Monitor Staging Site Coordinators (SL7) and Staging Site Teams as they prepare for setting up activated staging areas immediately after the storm has passed

**DURING MAJOR STORM**

- Mitigate regional S&L issues and ensure regional needs are being met
- Log and track all regional S&L issues; provide after storm to support lessons learned
- Interface and support RSM's (REG1), RRC's (REG5), and System Site Coordinator (SL3)
- Communicate Regional staging needs to the System Site Coordinator (SL3)

**AFTER MAJOR STORM**

- Assist in closing of S&L Site by collaborating with all System personnel
- Oversee closing of all S&L Sites by coordinating with Staging Site Coordinators (SL7)
- Identify gaps in S&L System Storm Center processes for Lessons Learned report
- Ensure S&L Sites have been completely closed or turned over to designated System partners

**Methods of performing job duties**

- Voice and E-mail communications
- Participating in Regional and System S&L calls
- Field visits to Regional S&L Sites

**Measures of success**

- No safety related incidents
- Resolution of Regional escalated calls with the expectation of 0 being escalated to System S&L
- 0 Human Resource issues escalated to System S&L
- 0 Site customer issues escalated to System S&L
- Accuracy of Regional Site counts, i.e. beds, food, etc.

**Documents/forms needed**

- Regional Operations Contact List
- System S&L & Supporting Org Contact List
- S&L Roles & Responsibilities
- S&L Team Rosters
- Regional S&L Mustering & Staging Site Maps
- Resource Link Reports
- Timeline Checklist

**Primary support location where employee works**

- Regional Storm Center
- Regional S&L Sites
- Regional Operations Centers

**Training Requirements**

- Job shadow experienced S&L Regional Coordinator (SL6) for a period of one active storm season

## **Checklist of Actions**

### **PRE-STORM SEASON**

- Complete Annual Staging Site Coordinator Training
- Complete Annual Staging Site Team Meetings
- Update contact information for all team members
- Inventory PPE needed for Staging Site Team (to be acquired if activated for storm response)

### **BEFORE MAJOR STORM**

#### **4 Days (96 HRS) Prior to Storm**

- Initiate and establish communications with S&L Site team members at direction of S&L Resource Management (SL2) (could be 96/72/48 hour dependent on storm track and speed)
- Participate in pre-storm System S&L Storm conference calls

#### **3 Days (72 HRS) Prior to Storm**

- Activate S&L Site Team when directed by S&L Regional Coordinator (SL6) and S&L Resource Management (SL2)
- Participate in pre-storm System S&L Storm conference calls

#### **2 Days (48 HRS) Prior to Storm**

- Make final preparations to secure your family and home
- Obtain USB Flash Drive from S&L IT&T Liaison (SL3B) with up-to-date Team Lead Manual download
- Obtain assigned S&L Site Map information and familiarize yourself with site layout
- Obtain all required S&L Site Kits (ITT Kit, S&L Office Supply Kit, S&L Site Storm Kits Inventory list)
- Obtain Storm Laptop
- Initiate and establish communications with S&L Staging Site contacts
- Participate in pre-storm System S&L Storm conference calls
- Purchase remaining PPE items needed for Staging Site Team members

#### **1 Day (24 HRS) Prior to Storm**

- Make final preparations to secure your family and home
- Participate in pre-storm System S&L Storm conference calls

### **DURING MAJOR STORM**

- Implement the assigned S&L Site area per S&L Site Map
- Ensure S&L team members report to S&L Site and bring Personal Storm Kits
- Initiate and establish communications with S&L Safety Coordinator (SAF3) and Site Safety Proctor (SL7D)
- Initiate and establish communications with on-site Security Liaison
- Maintain communications with S&L Regional Coordinator (SL6) and System Site Coordinator (SL3)
- Maintain communications with Site Hotel Representative (SL7C) to monitor hotel activity
- Manage S&L Site team member assignments
- Track daily S&L Site inventory and expenses
- Coordinate with S&L Site Caterer to establish meal counts
- Coordinate Fuel procurement
- Interface with Crew Mobilization Liaison (SL4)
- Obtain early estimates of crew movement throughout the restoration process
- Closely monitor crew mobilization activity
- Represent assigned S&L Site on S&L team calls

### **AFTER MAJOR STORM**

- Manage the decommission of S&L Site
- Reconcile all storm credit card transactions and records
- Reconcile daily inventory and expenses for accurate cost projections
- Reconcile all tracking records of rental vehicles used on S&L Site



**SL7A: Site Support**

**Job Function**

Site Support (SL7A) personnel work under the direction of the Staging Site Coordinator (SL7) and are responsible for setting up, maintaining, and closing down the S&L Site.

**Job Description**

- Assist with S&L Site area set-up
- Support Materials Coordinator (SS) with organizing and maintaining materials on S&L Site
  - Procure materials, equipment, and supplies as needed or requested
  - Assist with loading and/or unloading materials (if fork lift used, must be certified operator)
  - Issue materials to crews as directed
- Coordinate S&L Site parking and traffic direction on site. Provide morning and evening coverage (will require a lead person)
- Assist with meal arrangements and/or deliveries as needed
- Maintain staging area in good order
- Replenish ice and water stocks in distribution areas
- Carry out other duties as assigned
- Assist in shut-down/clean-up and closing of staging area

**Key Interface Points**

- Staging Site Coordinator (SL7)
- Materials Coordinator (SS)
- Site Safety Proctor (SL7D)

**Checklist of Actions**

**PRE-STORM SEASON**

- Update contact information in PeopleSoft
- Inventory PPE list and notify Staging Site Safety Proctor (SL7D) of needed items (during annual Team Meeting)
- Review Family/Home Preparedness plan
- Attend annual Team Meeting
- Complete annual storm organization certificate confirming knowledge and understanding of assigned storm role (at direction of S&L Resource Management (SL2))

**BEFORE MAJOR STORM**

**4 Days (96 HRS) Prior to Storm**

- Ensure all PPE and storm gear is accounted for and ready
- Maintain communication with assigned Staging Site Coordinator (SL7)

**3 Days (72 HRS) Prior to Storm**

- Read/review weather updates provided to stay informed of latest track and potential impacts
- Make initial plans for securing family/home
- Maintain communication with assigned Staging Site Coordinator (SL7)

**2 Days (48 HRS) Prior to Storm**

- Check latest forecast track and potential impacts of storm to plan accordingly
- Make final preparations for securing family/home so last minute decisions do not have to be made
- Maintain communication with assigned Staging Site Coordinator (SL7) for any changes to plan
- Make sure vehicle to be used is fully fueled
- Ensure have cash and medications on hand for two weeks

## **SL7B: Site Administrative Support**

### **Job Function**

The Site Administrative Support (SL7B) is responsible for all administrative duties assigned by the Staging Site Coordinator (SL7)

### **Job Description**

- Set-up S&L Site office at S&L Site
- Maintain and replenish office supplies for S&L Site office (before & after)
- Compile various S&L Site and tracking reports as needed
  - Rental Vehicles
  - Cell phones, radios, and satellite phones
  - Timesheets for S&L Site members
  - Crew Check in sheets and Check Out/Survey sheets
  - Daily site material and procurements to staging site coordinator
  - Daily storm card and expenses charged reported to System Administration (SL1A)
- Perform administrative duties to support S&L Team as assigned by Staging Site Coordinator (SL7)

### **Key Interface Points**

- Staging Site Coordinator (SL7)
- Site Hotel Representative (SL7C)
- Site Support (SL7A)
- Site Safety Proctor (SL7D)
- System Administration (SL1A)
- S&L Financial Analyst (SL8)

## **Checklist of Actions**

### **PRE-STORM SEASON**

- Continue monitoring storm's path and intensity for family/home potential issues
- Final check for PPE and storm gear readiness
- Continue communicating with assigned Staging Site Coordinator for any updates/changes to plan or locations to report so team can be deployed without delay
- Maintain communication with assigned Staging Site Coordinator (SL7)

### **BEFORE MAJOR STORM**

#### **4 Days (96 HRS) Prior to Storm**

- Review system storm plan along with Site Administrative Support responsibilities
- Check S&L Site Kits for all office supplies and prepare a list of items needed, if necessary
- Review Family Preparedness Plan

#### **3 Days (72 HRS) Prior to Storm**

- Ensure all PPE and storm gear is accounted for and ready
- Maintain communication with assigned Staging Site Coordinator (SL7)
- Prepare for possible deployment

#### **2 Days (48 HRS) Prior to Storm**

- Ensure storm credit cards, storm computers, and printers are available/working (based on location – if assigned away from kit location, move to 96 or 72 hour checklist)
- Ensure the storm USB flashdrive is loaded with current team lead manual
- Maintain communication with assigned Staging Site Coordinator (SL7)

**SL7C: Site Hotel Representative****Job Function**

The Site Hotel Representative (SL7C) is responsible for setting up, maintaining, and closing down the S&L Site hotel unit within the S&L Site office.

**Job Description**

- Set up and shut down S&L Site office for hotel services
- Maintain required system hotel reports (S&L Hotel Tracking Tool)
- Accurately track hotel room assignments daily
- Collect hotel keys from assigned staging site hotels and distribute as crews are assigned to hotels and rooms

**Key Interface Points**

- Staging Site Coordinator (SL7)
- Assigned Hotel contacts
- Hotel Fulfillment Team (SL5B)

**Checklist of Actions****Before Major Storm**

- Ensure all PPE and storm gear is accounted for and ready
- Maintain communication with assigned Staging Site Coordinator (SL7)
- Maintain communication with Fulfillment Team (SL5B)

**During Major Storm**

- Maintain communication with assigned Staging Site Coordinator (SL7)
- Maintain communication with Fulfillment Team (SL5B)
- Contact hotels to arrange only key pick-up/distribution
- Accurately track daily hotel needs (S&L Hotel Tracking Tool)

**After Major Storm**

- Maintain communication with Fulfillment Team (SL5B)
- Finalize Hotel reports
- Shut down S&L Site Hotel Office

**Tools and Information Needed**

- S&L Hotel Tracking Tool
- Laptop
- Printer

**Training Requirements**

- Online Storm Hotel Reservation Tool Training

- Order or purchase additional safety equipment or material as needed
- Post safety signs at S&L Site as required
- Provide maps and directions or means of transportation to local medical facilities and/or hospitals if needed
- Communicate with other Site Safety Proctors (SL7D) and assist as needed
- Communicate with Staging Site Coordinator (SL7) and assist as needed
- Assist with S&L Site traffic control
- Daily inspection of S&L Site:
  - Maintain daily log of S&L Site inspections and report safety related issues to Staging Site Coordinator (SL7)
  - Materials Area: Ensure materials are stored and handled safely
  - S&L Site office: Ensure trip hazards, fire hazards, etc., are eliminated
  - Mess Area: Ensure area maintains high level of cleanliness and allows for safe pedestrian traffic
  - Refrigerator and Ice trailers: Ensure proper steps or stairs are utilized for entering and/or exiting; identify and eliminate potential slip hazards
  - Mobile pole lamps and generators: Ensure equipment is safely stored or setup and eliminate combustible materials from this area
  - Vehicle entrance and exits: Ensure appropriate signage is in use and site traffic patterns are clearly identified
  - S&L Site grounds: Ensure the safety of personnel and equipment
  - Correct safety related hazards

#### **AFTER MAJOR STORM**

- Assist S&L personnel with site demobilization
  - Ensure PPE is worn
  - Ensure S&L Site traffic is controlled safely
  - Ensure materials are handled and loaded safely
  - S&L Site is cleaned and returned to pre-storm condition or better

#### **Training Requirements**

Safety Proctor Training to be performed annually

#### **Tools and Information Needed**

- APM
- PPE
- Medical Facilities/Hospital locations
- S&L Site Safety Kits
- Blood-Born Pathogens Kits
- First Aid Kits
- S&L Site Safety signage

#### **Engaged in the Following Sub-process:**

- Daily Staging Site Management

**AFTER MAJOR STORM**

- Ensure System Administration (SL1A) has begun storm card reconciliation, provide guidance as needed and assign due date for completion
- Provide any final cost estimates requested to Storm Accounting (BO7)

**Tools and Information Needed**

- DSSOP
- S&L Contact List
- Resource Link Tool
- RSVP Tool
- Wall charts of staging sites and assigned personnel
- Corporate Time Entry for every EIT org supporting S&L
- S&L Site Timesheet
- Major Storm Card Expense Reconciliation form
- Cash Advance Reconciliation form
- PEF S&L Site Tracking Tool (Financial Tracking Tool)

**Training Requirements**

Training and directions received from System S&L Coordinator (SL1) and System Administration (SL1A-A).

Document title

# Corporate Communications

Document number

**EMG-EDGF-00045**

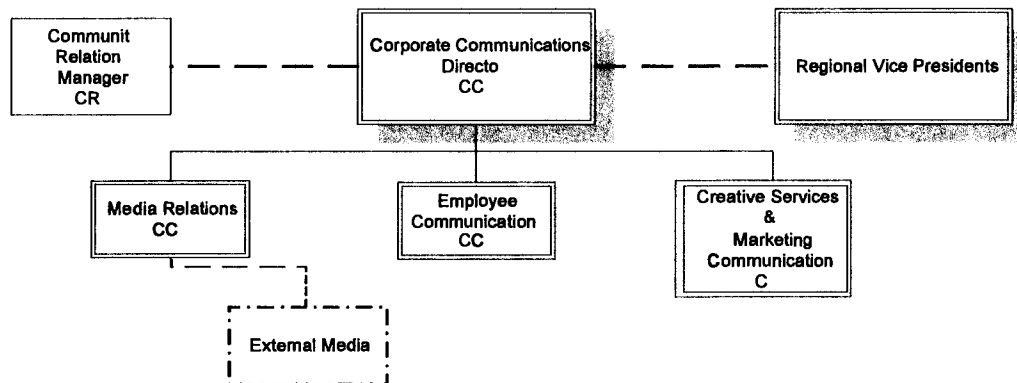
Applies to: Energy Delivery – Florida

Keywords: emergency; distribution system storm operational plan

## Mission

The Corporate Communications Department (CCD) uses its Storm Communications Plan to guide the development and communication of key messages regarding Progress Energy's storm response before, during and after the event. CCD engages media, advertising and employee communications to keep all external and internal stakeholders informed of the company's response.

## Organization Chart



## Sub-process

The Corporate Communications functional process includes the following sub-process:

### Status Communication

#### Status Communication

This sub-process monitors status communications before, during, and after a major storm event and develops key messages for internal and external audiences.

The following personnel are engaged in Status Communication:

- Creative Services and Marketing Communications (CC4)
- Community Relations Manager (CR3)
- Corporate Communications Director (CC1)
- Employee Communications (CC3)
- Media Relations (CC2)



## **Job Descriptions**

### **CC1: Corporate Communications Director**

#### **Job Function**

The Corporate Communications Director is the primary contact for management and CCD staff before, during and after a storm. This individual addresses staffing issues, and key message oversight.

#### **Job Description**

- Create CCD Storm schedule, schedule section meetings and keep section updated on mandatory storm calls.
- Report to senior management when designated by CCD VP.
- Designate Lead Media Coordinator.

#### **Key Interface Points**

- Executive team
- CCD VP
- CCD staff
- RVPs
- External Relations – CRM (CR3)/CIG/CSC
- Distribution System Storm Coordinator (DSSC1)

### **CHECKLIST OF ACTIONS**

#### **Before Major Storm**

- Create CCD storm schedule
- Attend all storm calls and update staff from the calls.
- Oversee the development of storm preparation messages.

#### **During Major Storm**

- Help media relations create and distribute key messages to media.
- Attend all storm-related calls.

#### **After Major Storm**

- Senior management liaison
- Oversee Lead Media Communicator's development of key messages during shift.
- Oversee the development of storm restoration messages.

#### **Tools and Information Needed**

Job related.

#### **Training Requirements**

Job related.

### **CC2: Media Relations**

#### **Job Function**

The media relations team members primarily serve as media liaisons communicating to customers and media before, during and after a storm. Additionally, the team's responsibilities include updating regularly updating key internal and external audiences on storm preparation/restoration efforts.

**CHECKLIST OF ACTIONS**

**Before Major Storm**

- Participate in all system storm conference calls. (LMC)
- Develop and distribute key messages and press releases. (LMC/MC)
- Ensure storm communications room contains adequate supplies. (ALL)
- Coordinate PEF CCD employee travel. (ALL)

**During Major Storm**

- Continue to communicate to the media. (LMC/MC/PC)

**After Major Storm**

- Coordinate communications needs with regional VPs and External Relations. (LMC)
- Communicate with internal management, Governor's office and EOC (SC)
- Develop and distribute key messages and press releases. (LMC/MC/PC)
- Proactive media pitching and coordinate press access. (LMC/MC/PC)
- Possible media field duty. (ALL)

**Tools and Information Needed**

Job related.

**Training Requirements**

Job related.

**CC3: Employee Communications**

**Job Function**

This position will typically be under the supervision of the Manager – Employee Communications, North Carolina. To effectively communicate with Progress Energy employees before, during and after a storm affects PE service territory.

**Job Description**

- Activation and management of Storm Center web site. (Raleigh team)
- Distribution of InfoBulletins and RSVP InfoBulletins (Raleigh team, with content from Florida)
- Ensuring arrangements of photographs and first-person accounts of employee contributions to the restoration efforts.

**Key Interface Points**

- Distribution System Storm Coordinator (DSSC1)
- Director, Florida Communications
- Manager, Employee Communications

**CHECKLIST OF ACTIONS**

**Before Major Storm**

- Activation and management of Storm Center web site.
- Distribution of InfoBulletins and RSVP InfoBulletins
- Ensuring arrangements of photographs and first-person accounts of employee contributions to the restoration efforts.

**During Major Storm**

- Management of Storm Center web site.
- Distribution of InfoBulletins and RSVP InfoBulletins

Document title

# Corporate Security

Document number

**EMG-EDGX-00046**

Applies to: Energy Delivery – Carolinas and Florida

Keywords: emergency; distribution system storm operational plan

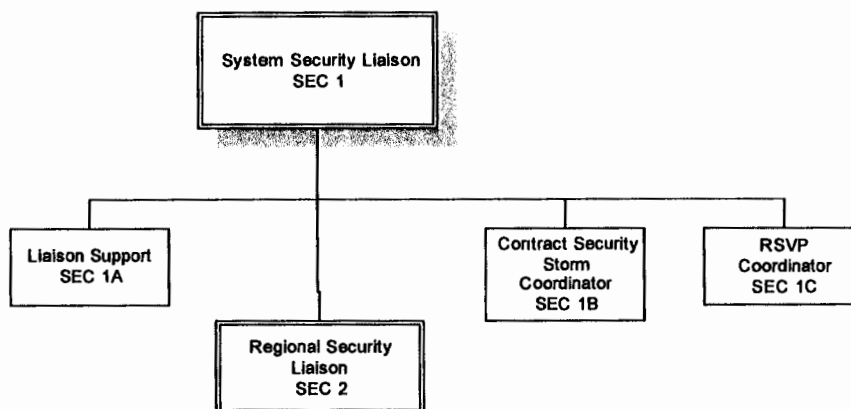
## Mission

Corporate Security procures and provides oversight of contract security officers and law enforcement resources needed for asset protection and access control at staging sites, operations centers, administrative facilities, and generation sites. Corporate Security also conducts investigations on behalf of the company and provides security-related guidance to internal customers.

## Organization Chart

Contact information for the Carolinas and Florida Corporate Security team is contained here.

### Carolinas / Florida Corporate Security Storm Support Organization Chart

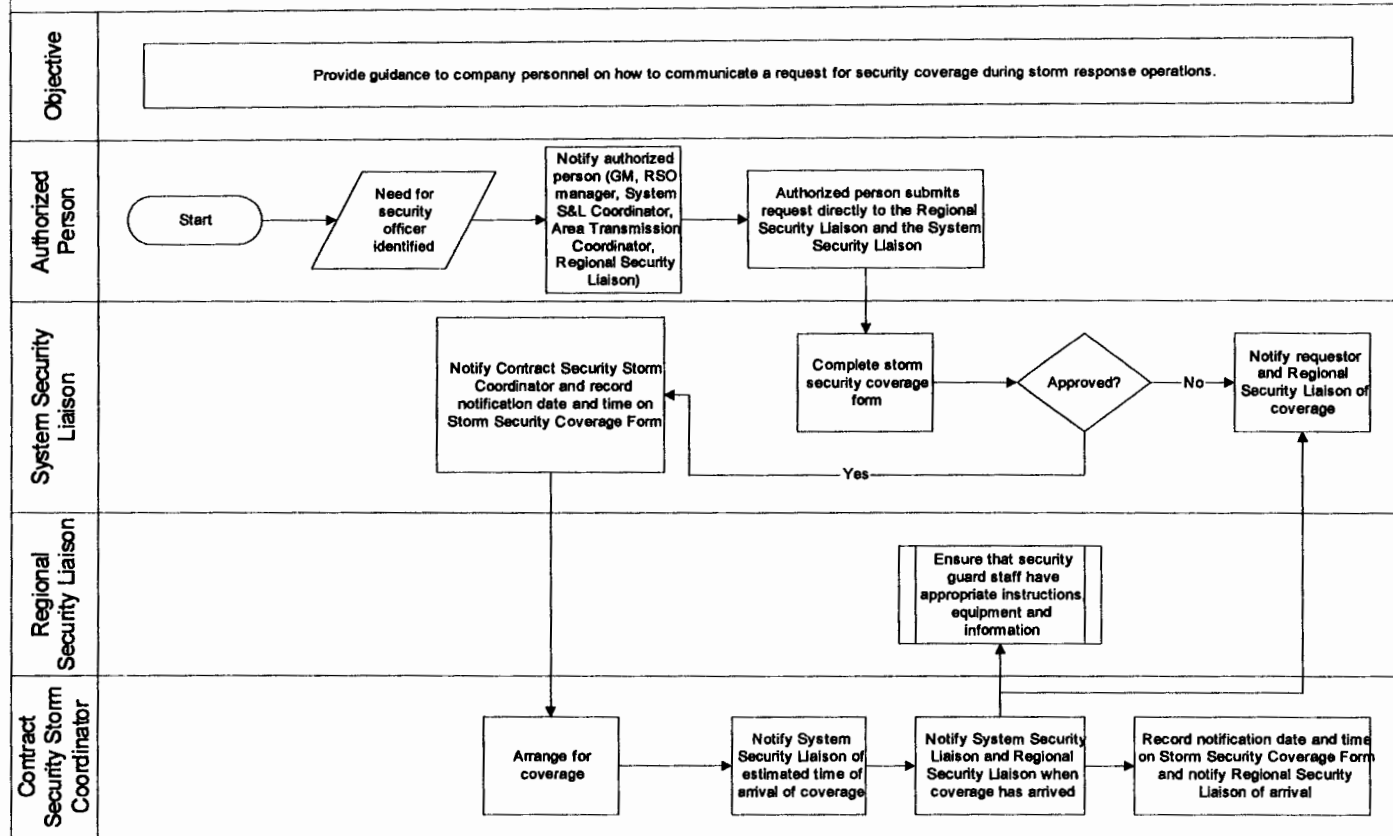


## Sub-processes

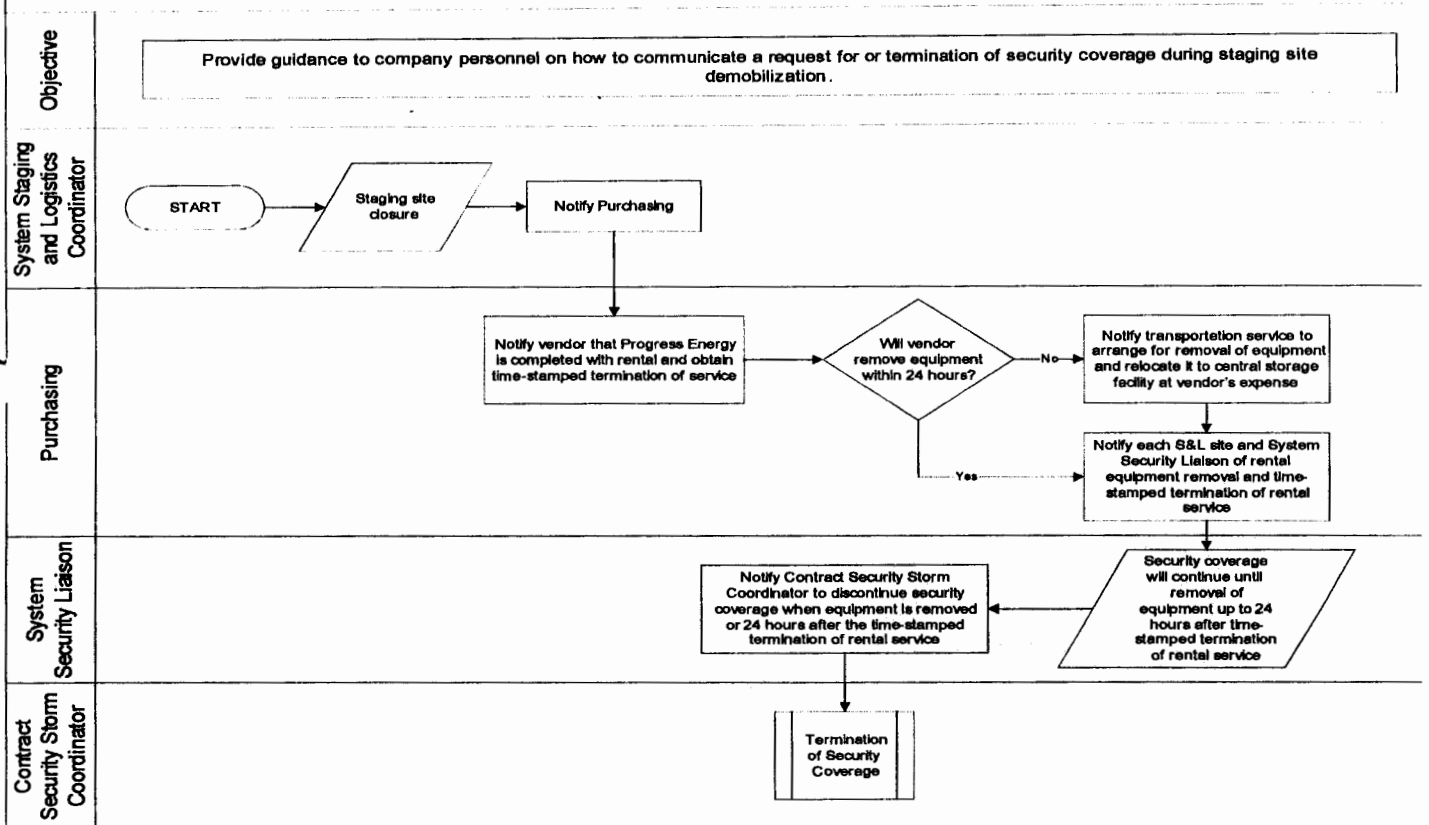
The Corporate Security functional process includes the following sub-processes:

- Providing Security Resources
- Termination of Security Resources
- Staging Site Demobilization

Providing Security Resources Sub-process: Request for Security Coverage



Providing Security Resources Sub -process: Staging Site Demobilization



**Key Interface Points**

- Contract Security Storm Coordinator (SEC1B) -contract guard force management
- Regional Security Liaison (SEC2)- Corporate Security Specialists (in the field)
- Distribution System Storm Coordinator (DSSC1)
- Law enforcement agencies
- Region Storm Coordinator (REG2) and regional field personnel
- System Staging and Logistics Coordinator (SL1)
- System Site Coordinator (SL3)

**Checklist of Actions**

An all-inclusive pre-storm checklist is contained in Attachment 1.

**Before Major Storm**

- Evaluate Pre-Hurricane Deployment Guidelines (Distribution Storm Plan- Exhibit #24) for restrictions to deploying personnel to areas projected to be impacted by severe winds.
- Develop manpower needs and coordinate with Regional Security Liaison (SEC2) personnel, System Support personnel, and Contract Security Storm Coordinator (SEC1B) to ensure all are engaged and deployed as necessary.
- Ensure all personnel assigned are aware of duties required.
- Report to System Storm Center.
- Ensure System Storm Center is fully supplied and staffed.
- Participate in all System Storm Calls.

**During Major Storm**

- Manage Regional Security Liaison personnel, System Support personnel, and Contract Security Storm coordinator.
- Process, evaluate, and approve/deny requests for Security Coverage at all sites using the Security Coverage Request Form (FRM-EDGX-00001).
- Ensure all sites are staffed with Security personnel as required.
- Participate in all System Storm Calls.

**After Major Storm**

- Process requests for termination of Security Coverage.
- Ensure Regional Liaison Personnel and Contract Security Storm Coordinator are following proper procedures for Termination of Security coverage.
- Participate in all System Storm Calls.

**Tools and Information Needed**

- Budget Forecast tool (e-mailed spreadsheet from Accounting submitted at end of each business day)
- Guard Posting spreadsheets
- Electronic map program w/ GPS locator
- Laptop computer with Perspective software
- Company 900 MHz portable radio
- Maps and wall charts of company locations
- Staging and Logistic Site information and contact list of staging site personnel
- Standard Operating Guidelines for contract security force
- Voice and e-mail communications



**Tools and Information Needed**

- Guard Post Spreadsheets
- Maps and wall charts of company locations
- Company 900MHz desktop radio
- Laptop computer with Perspective software
- Staging and Logistic Site information and contact list of staging site personnel
- Law enforcement agency contact list
- Voice, e-mail and facsimile communications

**Engaged in the Following Sub-process**

- Providing Security Resources

**SEC1B: Contract Security Storm Coordinator****Job Function**

The Contract Security Storm Coordinator acts as the primary contact between Progress Energy and the engaged contract security company. All security coverage and security performance issues will be communicated through the Contract Security Storm Coordinator.

**Job Description**

- Facilitate security officer coverage requests in coordination with the contract security command post.
- Maintain an up-to-date contract security coverage spreadsheet to track deployed personnel, their contact information (including cell number and hotel room phone number), and hours of work, and track billing hours.
- Ensure security officer logistics, such as housing, food, transportation, etc., has been arranged. If officers are assigned to a Strike Team, this may be coordinated by the Strike Team's Resource Utilization Coordinator or the assigned Corporate Security Liaison.
- Monitor the Storm Security Command Center 900MHz radio for critical communications.
- Staff the Storm Security Command Center in accordance with the instructions of the System Security Liaison.
- Ensure all Security Officers have cellular phones and recommended personal protective equipment.
- Ensure all Security Officers are aware of their safety and job responsibilities and are been properly briefed. A job aid listing expectations for security officers is attached as Attachment 3.

**Key Interface Points**

- Contract security company
- System Security Liaison (SEC1)
- Liaison Support (SEC1A)

**Checklist of Actions****Before Major Storm**

- Develop manpower needs and coordinate contract security response with the SEC1
- Notify contract security company of deployment needs and timelines
- Report to the Corporate Security Storm Command Center
- Process requests for security services coverage using

**Checklist of Actions****Before Major Storm**

- 72-96 hours prior, begin identifying Corporate Security employees availability for storm duty and input data into RSVP tool.
- 48-72 hours prior, complete employee availability input into the RSVP tool and begin activation of employees
- 24-48 hours prior, complete activation of all identified Corporate Security employees
- 0-24 hours prior, finalize any pre-storm resource allocation plan adjustments in the RSVP tool.

**During Major Storm**

- Periodically update resource allocation adjustments in the RSVP tool throughout the restoration effort
- Release employees from Corporate Security storm support, as they become available, for use by other storm organizations
- Identify released Corporate Security employees that are not able to support other storm organizations as "Not Available" in the RSVP tool

**After Major Storm**

- Release all Corporate Security employees from the current storm in the RSVP tool
- Participate in any lessons learned exercises after each storm event
- Forward lessons learned results to the System RSVP Coordinator

**Tools and Information Needed**

- RSVP Tool
- RSVP Quick Reference Guidelines
- RSVP Training Manual

**SEC2: Regional Security Liaison****Job Function**

The Regional Security Liaison acts as a single point of contact to Progress Energy field personnel, primarily addressing security-related concerns on a regional basis during storm restoration activities.

**Job Description**

- Interact with Regional Storm management on threat and employee safety issues
- Ensure that security guard staff have appropriate instructions, equipment, and contact information by providing a pre-job brief using attachment 3 and 4
- Interact with local law enforcement and public officials to facilitate employee, contractor, and logistical support personnel's access into disaster areas
- Carry out non-staff-related security functions, including criminal investigations involving Progress Energy property, investigating threats by customers, and interfacing with law enforcement agencies
- Represent Corporate Security on Region storm conference calls when required by the Region Storm Coordinator (REG2)

**Key Interface Points**

- Contract guard force management
- Law enforcement agencies
- Region Storm Coordinator (REG2) and regional field personnel
- Regional Staging Site Coordinators (SL6)
- Staging Site Coordinators (SL7)
- System Security Liaison (SEC1)

## **Engaged in the Following Sub-process**

- Providing Security Resources

## **Post-Disaster Re-entry Process**

Post disaster re-entry process refers to plans by State and Local governments to ensure the life safety of citizens following a major disaster by tracking emergency commodities and by limiting access or re-entry into impacted areas. The restoration of electric service to a community has been deemed necessary to ensure life safety. Electric utilities have been granted re-entry access under these plans.

These re-entry processes are adopted by State statute and will be utilized during large scale incidents that impact several counties and involve a disaster declaration by the Governor of the State. Local counties and public officials will enforce the curfews or restrictions into the impacted areas.

The System Security Liaison (SEC 1) and Regional Security Liaison (SEC 2) need to be aware of re-entry requirements for the impacted areas. Many States will issue an annual placard or other means of identifying those granted access for any disaster that occurs. Placards are valid for a specific period, usually a calendar year.

## **Checklist of Actions**

### **Before Major Storm**

- Ensure familiarity with re-entry process for the assigned region or area of responsibility
- Ensure adequate supply of Re-Entry placard or certificate on hand in Storm Kit
- Disseminate placards or certificates to contracted security officers

### **During Major Storm**

- Provide briefing on requirements of re-entry process and disseminate placards or certificates to others as needed
- Coordinate security functions with local law enforcement and/or public officials to facilitate re-entry.

## **Deployment Procedures for Strike Team Security**

Security may be part of the deployment package when Progress Energy resources are sent to support restoration efforts for other utilities during an off-system assistance request.

While it is the current policy of Progress Energy not to use armed Security Officers, in the event that they are used, Security personnel requirements shall be discussed and mutually agreed upon by the Requesting and Responding Companies prior to deployment. Any deployment of "Security Personnel", armed or otherwise, must comply with Federal, State, and Local regulations.

The Requesting Company will provide vehicle security for parking areas unless specifically agreed otherwise. The Responding Company is responsible for traveling security when needed. There may be instances where security that has travelled with deployed Progress Energy assets (Strike Teams) are kept with the assets even though the destination site has adequate security. If the situation dictates additional security, the need and cost accounting shall be agreed upon by the Requesting Company. The Requesting Company will handle all food, lodging, and incidental support needed by the Responding Company with the exception of food and lodging during travel to and from final work site. All security personnel shall be listed on the Storm Team List under support to ensure cost documentation and tracking.

## **Attachment 1 Corporate Security Pre-Storm Checklist**

### **MARCH 1 THROUGH JUNE 1**

- ☐ Safety First.
- ☐ Re-familiarize yourself with your storm region including potential Staging and Logistic sites, law enforcement contacts and infrastructure.
- ☐ Initiate contact with the regional coordinators in each area. Update Corp Security Storm Team Contact Lists.
- ☐ Ensure your storm kit, vehicles, and communications equipment are in order.
- ☐ Disseminate latest version of Corp Security Storm Plan to contracted security vendor.

### **JUNE 1 THROUGH THE CONCLUSION OF STORM SEASON**

- ☐ Safety First.
- ☐ Carefully plan your vacation schedules being mindful of peak season.
- ☐ Ensure your storm kit, vehicles, and communications equipment are in order.
- ☐ Monitor weather throughout the season and maintain occasional contact with storm coordinators.

### **5 DAYS PRIOR TO THE STORM**

- ☐ Safety First.
- ☐ SSL and RSL's monitor emerging weather reports.
- ☐ SSL places security providers on notice.
- ☐ SSL informs RSL's to prepare for a field response.
- ☐ SSL and RSL's begin preliminary discussions on required resources based on projected path and intensity.
- ☐ SSL will monitor business environment for the release of the major storm number and authorize a partial mobilization when appropriate.
- ☐ Administrative Staff will verify LEA processes for requesting off duty LE support in target areas.

### **72 HOURS PRIOR TO THE STORM**

- ☐ Safety First.
- ☐ SSL and RSL's monitor emerging weather reports.
- ☐ RSL's will initiate contact with the regional coordinators in each area.
- ☐ SSL and RSL's will determine radio requirements for response.
- ☐ SSL and RSL's participate in any storm related calls invited onto listening for emergent information.
- ☐ SSL will monitor the regulatory environment for the declaration of a state of emergency. Upon declaration, SSL will request public affairs to obtain a license waiver from the state if necessary.
- ☐ SSL will ensure all System Storm Center phone/fax numbers are working and will verify post documents reflect the same.
- ☐ SSL will liaison with contract security storm coordinator.
- ☐ SSL will request additional mobilization of contractor resources if appropriate.

### **48 HOURS PRIOR TO STORM**

- ☐ Safety First.
- ☐ RSL's will begin contractor training/expectation debriefs upon arrival to service territory.
- ☐ SSL and RSL's participate in any storm related calls invited onto listening for emergent information.
- ☐ RSL's will maintain contact with the regional coordinators in each respective area.
- ☐ SSL will validate deployment numbers based on published S&L information and preliminary requests from the business units.

### **24 HOURS PRIOR TO STORM**

- ☐ Safety First.
- ☐ SSL and RSL's will continue contractor training/expectation debriefs upon arrival to service territory.
- ☐ SSL and RSL's participate in any storm related calls invited onto listening for emergent information.
- ☐ RSL's will maintain contact with the regional coordinators in each respective area.
- ☐ SSL will validate deployment numbers based on published S&L information and preliminary requests from the business units and adjust as necessary.

**Attachment 3  
Pre-Job Brief**

**1. Take inventory of PPE/Safety Items**

**2. Familiarize yourself with the vehicle**

- a) adjust seat and mirrors
- b) verify positions of light switches, turn signals, wipers, cruise controls, door and window controls
- c) perform preflight – fluids, tire pressure, gas card, spare tire with jack
- d) test drive vehicle to familiarize yourself with braking system
- e) verify your vehicle load is secure and able to drive at highway speeds, if applicable
- f) verify if air bag is engaged for travel (if so equipped)
- g) familiarize yourself with travel route
- h) **USE SEAT BELTS WHILE OPERATING VEHICLE**

**3. Arrive Safely**

- a) Remember, your first priority is to arrive safely
- b) Be alert to changing speed conditions
- c) Be alert to blind spots for you and those you are near
- d) Be alert to road obstacles, such as holes, animals, packaging and failed tire retreads
- e) Be alert to changing wind conditions and rain
- f) Don't get too comfortable or complacent as you travel – stay alert
- g) Utilize Smith Driving Points if you have attended classes
  - 1) Look ahead – approximately 15 seconds distance
  - 2) Keep your eyes moving – 360 degree awareness
  - 3) Make eye contact with other drivers to verify they know you are there
  - 4) Give yourself a way out – in case someone cuts you off
  - 5) Keep good distance between you and vehicle ahead—approximately 5 seconds
- h) Lead cars should communicate with other team members identified road hazards

**Safety Protocols:**

**This checklist is provided to assist you in conducting your safety briefing(s) for your team when you are deployed. In addition to other safety items you may wish to address, please cover the following:**

**1. Be aware that some of your team may be:**

- relatively new to the company
- from parts of the Company that are not part of a Safety Council

**And therefore may not be as familiar with our safety emphasis / safety rules.**

- And that some of your team may be performing tasks and / or working in an environment that is not part of their normal day to day work.
- Therefore, you are encouraged to emphasize safety each day while the Staging Site is in operation
- At Progress Energy safety is a value. This means if the task is done right there will be no injuries or damage. Your task and safety are not two separate parts of a job.

- **First aid kit locations** and blood born pathogen kits are on site (verify that none of the contents are out of date – replace if necessary).
- **Fire extinguisher locations** on site
- **Make sure everyone has Security contact information as well as emergency contacts and non-emergency numbers** for law enforcement and hospitals.
- **Fatigue-** Do not drive or perform other duties while fatigued, you are responsible to let your team leader know when you need a break.
- **If you are getting ready to perform a task and have concerns** about how to perform it safely, stop and ask the team leader.
- **If you are asked to perform a task and you have any limitation that could hinder you** please let one of your team leaders know.
- **How to respond to a security issue** on the site (what to do)
- **Make sure everyone of the team** has a set of written directions to the site on their person in the event they need to call 911 and give the emergency dispatcher directions to the site.
- **Familiarize yourself with facility evacuation plan** in case of fire or other emergency at the site
- Beware of conditions and surroundings at off site locations (i.e. hotels/motels, restaurants, etc)
- **Do not to place yourself in an area that is not well lit** unless you are with other personnel with whom you are familiar, establish a “buddy” system for night time duty.

No job is so important that we cannot take time to do it safely! Remember we know to do the job safely it will take more time. Take the time that is needed to do the job right!



**Attachment 5  
Workplace Violence Precautions During Storm Restoration**

**Predicting Violence- Indicators**

- Customer verbalizes a threat of violence
  - Manipulative Threat/Condition
  - Unconditional Threat
  - Veiled Threat
  - Direct Threat
- "Your Gut Level Feeling."
  - What does the gut level feeling tell you about this person? "Don't ignore your intuitive nature" This is your bodies built in warning mechanism" **Listen to it!**
  - **This is the normal progression of angry or upset people.**
    - Anxiety - sweating, pacing, fast breathing, red face and fist clenching
    - Loss of Verbal Control - using profanity, voice tone, etc.
    - Physical Attack
  - If the situation escalates to the point where you feel threatened or you believe a physical attack may be made against you....
    - Calmly and quickly walk away and immediately leave the area- contact 911 and the Security Command Center at (888) 275-4357 or (919) 546-7599.
    - If you are presented with no other option except to defend yourself from physical harm, only use the amount of force necessary to defend yourself and provide for enough time to immediately leave the area and contact 911 and the Regional Security Liaison.
    - Goal. Avoid all physical altercations. Both Employee and Customer will be in a win-win situation.

**Avoid-**

- Assuming you know how the customer feels without asking.
- Ignoring indirect signs of displeasure.
- Suggesting a solution before you've heard the customer out.
- Apologizing to the customer before listening and responding with empathy.
- Making suggestions without involving the customer.

**Have a plan-**

- Expand your awareness of the environment
  - Develop escape route
  - Identify obstacles and defensive tools
  - Maintain a safe distance

**"Taking the Heat"**

- Hear them out.
- Empathize with them.
- Apologize for the problem or inconvenience, which is not the same as accepting blame.
- Take responsibility for action by:
  - Further clarifying the situation.
  - Meeting or exceeding customer's needs.
  - Confirming customer's satisfaction.

Document title

# PEF Accounting Storm Team

Document number

**EMG-EDGF-00047**

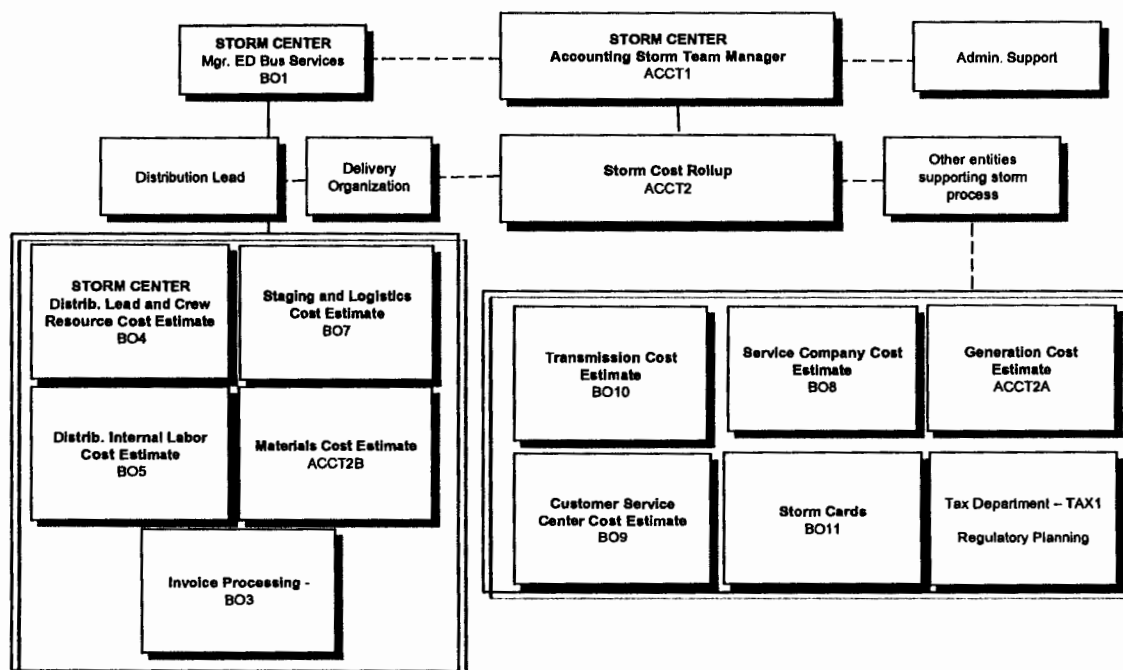
Applies to: Progress Energy – Florida

Keywords: emergency; distribution system storm operational plan

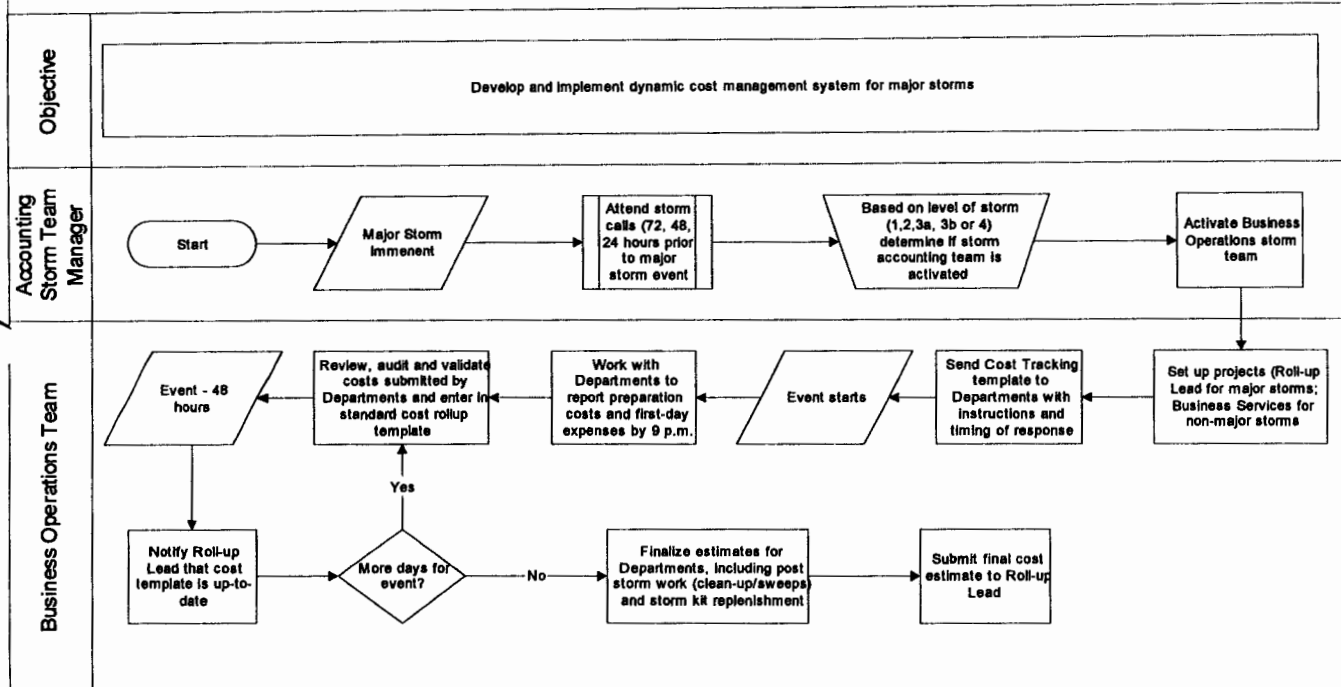
## Mission

The Accounting Storm Team, which is comprised of employees from accounting, business operations, and regulatory planning, develops and implements a dynamic cost management system for major storms that allows Progress Energy to capture and track costs as they are incurred. The system provides an accurate report of daily cost estimates, an accurate report of total storm cost estimates, a detailed basis for reconciling actual storm costs versus estimates, and a detailed basis to account for and record specific storm costs. A major storm for this policy is defined as one for which the Accounting Storm Team is activated.

## Storm Organization Chart



# Business Operations Process: Before and During Major Storm Events



## **Job Descriptions**

### **ACCT1: Accounting Storm Team Manager**

#### **Job Function**

The Accounting Storm Team Manager leads the Accounting Storm Team and holds overall accounting responsibility for major storms, including both estimated and actual costs.

#### **Job Description**

- Act as liaison and provide support to Manager of Energy Delivery Business Services (BO1) to facilitate the storm-costing process
- Participate in daily System storm conference calls and provide storm cost metrics as requested
- Take notes on items of interest from cost perspective, including damage claims, personal injuries, off-system resources brought on-line, helicopters and vehicle use, etc.
- Obtain approved extended pay memo from Manager of Energy Delivery Business Services (BO1) and communicate to Rollup Lead (ACCT2)
- Schedule and lead daily Accounting Storm team storm conference calls
- Communicate to all team members to activate Business Operations RSVP role
- Ensure compliance with Generally Accepted Accounting Principles (GAAP) and Sarbanes Oxley Act
- Review and approve overall storm cost estimate and forward to Legal Entity Controller for Senior Management communication.
- Report to the Distribution System Storm Coordinator (DSSC1)
- Consultation on FPSC Rules related to storm accounting.
- Provide total and incremental storm cost estimate to PEF Controller, who communicates with Senior Management.

#### **Key Interface Points**

- Business Operations storm team
- Distribution System Storm Coordinator (DSSC1)
- Manager of Energy Delivery Business Services (BO1)
- Rollup Lead (ACCT2)
- Manager of Payroll

#### **Tools and Information Needed**

- Cost templates

#### **Training Requirements**

- Walk-through of cost templates, any new linking and/or time frames, and any additional individuals (positions) requiring data.

**BO1: Manager of Energy Delivery Business Services**

- Communicate/discuss with the Distribution System Storm Coordinator (DSSC1) the need to implement extended pay.
- Approve and draft extended pay memo, obtain signatures and forward to Payroll Department, Accounting Storm Team Manager (ACCT1) and Rollup Lead (ACCT2).
- Provide operational support and provide consultation as needed.

**TAX1: Tax Department, Regulatory Planning and Materials & Plant Accounting**

- Provide support for internal, external and regulatory audits/inquiries, as needed.
- Communicates changes in storm recover, as ordered by the Public Service Commission.
- Materials Accounting to consult, as needed, on property identification and close out of projects.

**Distribution Lead**

**Job Function**

The Distribution Lead is responsible for consolidating the estimated costs associated with resources brought in from off-system. The Distribution Lead also serves as backup and reviewer for all Distribution related storm roles.

**Job Description**

- Participate in Accounting Storm Team conference calls as necessary.
- Communicate, via "Major Storm Team" email address, approved extended pay memo.
- Thorough understanding of FPSC rules related to storm reserve accounting.
- **Off-System Specific Items:**
  - Responsible for setting up storm WBS code when a storm project is considered appropriate for off-system events (excluding Progress Energy Service Company WBS code) and communicating the WBS code to Accounting Storm Team and Operations.
  - Perform consolidation or rollup of total Storm Cost estimate for off-system storms using data gathered from members of Accounting Storm Team.
  - Billing information, including approval from ED Business Services Manager, to be provided by Distribution Lead to LE Assistant Controller. Assistant Controller's unit to process bills.
- **On-System Specific Items:**
  - For on-system major storms (where a universal storm project is set up by the Accounting Storm Team Lead), coordinate the estimates, analysis and any adjusting entries provided by the ED group.
  - For storms that do not elevate to the level of requiring a universal major storm project, the Distribution Lead will set up cost management projects for ED to use and will track and analyze the costs. Communicate these costs to the Accounting Storm Team Manager and Accounting Storm Team Lead to allow for the overall evaluation of recoverability.
  - Distribute extended pay approval via "Major Storm Team" e-mail address; ensure the Manager of Payroll receives the documented approval.

- Maintain all supporting documentation for the cost estimate and actual costs. Once storm costs are final and all actual costs have been recorded, auditable supporting documentation should be forwarded to the Rollup Lead to be archived for storms that use a universal major storm project.
- Ensure projects are being charged appropriately, including review of payroll reports available through Business Objects.
- Understanding of FPSC storm reserve rules, especially as they relate to internal labor and related burdening costs.
- Provide support for internal, external and regulatory audits/inquiries, as needed.
- Provide support for financial metrics.

#### **BO7: Staging and Logistics Cost Estimator**

- Interface with Staging and Logistics Manager to develop cost estimate for lodging, meals and staging and logistics site costs (ex. Tents, rentals, etc.).
- Interface with Purchasing and Supply Chain for purchasing needs.
- Collect daily S&L and field office spending reports, also receive RSVP activation reports. Segregate Service Company employees and communicate to Service Company Cost Estimator to ensure all head count charge through the service company to Energy Delivery. Monitor monthly actual charges and provide support for accrual to the Rollup Lead (or, to the Distribution Lead for storms that are not tracked using a universal major storm project).
- Maintain all supporting documentation for the cost estimate and actual costs, including credit card reconciliations. Once storm costs are final and all actual costs have been recorded, auditable supporting documentation should be forwarded to the Rollup Lead to be archived for storms that use a universal major storm project.
- Provide support for internal, external and regulatory audits/inquiries, as needed.
- Provide support for financial metrics.

#### **BO8: Service Company Cost Estimator**

- Interface with all Service Company departments to consolidate storm cost estimates via templates. (ex. Corporate Communication, Human Resources, Information Technology and Telecommunication, Security, etc.).
- Provide support and guidance to all Service Company departments on what can be charged to the storm and how to appropriately charge storm cost. Emphasize that hotel and rentals should be made through the travel center centrally; all meals should be eaten at staging or field offices where possible.
- Communicate to departments to include all service company employees in their estimate including employees deployed to other storm roles, such as Staging and Logistics or Damage Assessment. Note: There is a separate line on the template for RSVP volunteers. It's a regulation that all service company labor be billed from the service company to other entities.
- Validate the hourly rate for Service Company internal labor.
- Develop rollup Service Company cost estimate.
- Collect cost templates from each department in the service company.
- Verify each department has included all cost items.
- Monitor monthly actual charges and provide support for accrual to the Rollup Lead for storms that use a universal major storm project.
- Maintain all supporting documentation for the cost estimate and actual costs, including credit card reconciliations. Once storm costs are final and all actual costs have been recorded, auditable supporting documentation should be forwarded to the Rollup Lead to be archived.
- Understanding of FPSC storm reserve rules.



**BO11: Storm Cards Administrator**

- Request Florida Storm Card list from Darlene Buchanan in Disbursement Services in March.
- Send list along with storm card instructions to Distribution System Storm Coordinator or Major Storm Workplan Coordinator.  
The Coordinator will circulate the list to the appropriate areas to ensure that the cards are issued in the proper names for storm season.
- Obtain written approval or email from VP-Finance, Distribution System Storm Coordinator or PEF Controller for the activation of storm card plan.
- Activate and de-active storm credit cards by communicating with Disbursement Services. Field any issues with cards during the storm – limits, pins, activation, etc.
- Monitor storm card reports and provide spending to Accounting Storm Team for actual costs as incurred (daily during the storm, weekly after the storm restoration is complete).
- Monitor storm card charges for spending to ensure limits are not exceeded and facilitate limit changes as necessary.
- Work with Concur One Card system to ensure proper cost charging.
- Maintain all supporting documentation for the cost estimate and actual costs, including credit card reconciliations and card issue logs. Once storm costs are final and all actual costs have been recorded, auditable supporting documentation should be forwarded to the Rollup Lead to be archived.
- Provide support for internal, external and regulatory audits/inquiries, as needed.
- Provide support for financial metrics.

**ACCT2A: Generation Cost Estimator**

- Develop Generation cost estimate, including Nuclear Generation and Power Operations.
- Monitor monthly actual charges and provide support for accrual to the Rollup Lead (ACCT2).
- Maintain all supporting documentation for the cost estimate and actual costs, including credit card reconciliations. Once storm costs are final and all actual costs have been recorded, auditable supporting documentation should be forwarded to the Rollup Lead to be archived.
- Record required journal entries for disallowed costs.
- Understanding of FPSC storm reserve rules.
- Provide support for internal, external and regulatory audits/inquiries, as needed.
- Provide support for financial metrics

**ACCT2B: Plant Accounting/Materials Cost Estimator**

- Interface with Energy Delivery and Supply Chain for forecast of damage.
- Review materials issued for units of property.
- Develop Capital vs. O&M split of Storm Costs based on materials issued.
- Monitor daily material issuances from Passport.
- Monitor monthly actual charges and provide support for accrual to the Rollup Lead for storms that use a universal major storm project.
- Once capital costs are final, reclass these costs out of the storm project to plant accounts.
- Maintain all supporting documentation for the cost estimate and actual costs, including credit card reconciliations. Once storm costs are final and all actual costs have been recorded, auditable supporting documentation should be forwarded to the Rollup Lead to be archived.

Document title

# Damage Assessment

Document number

EMG-EDGF-00048

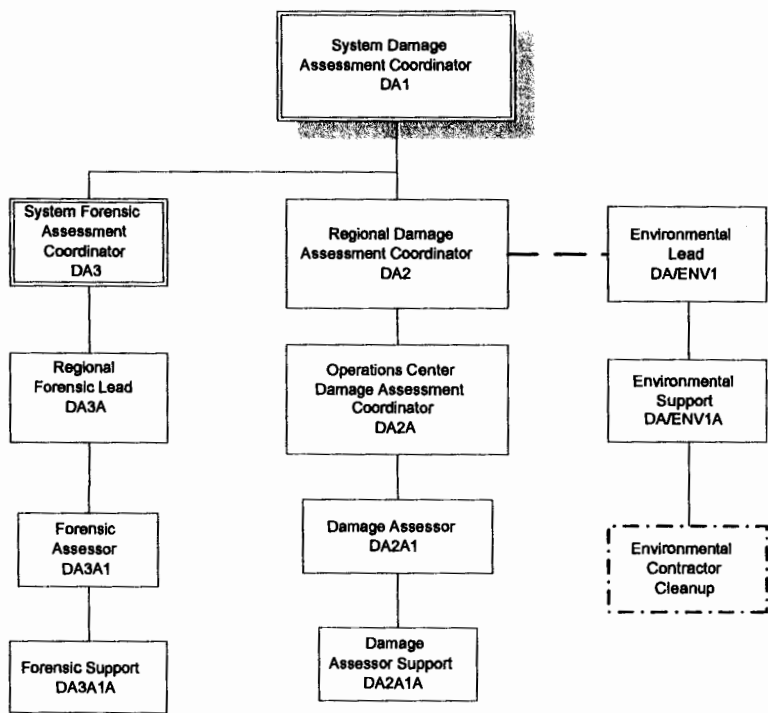
Applies to: Energy Delivery – Florida

Keywords: emergency; distribution system storm operational plan

## Mission

Damage Assessment (DA) provides predictive information regarding the extent of storm damage to the Progress Energy system and expected time of complete restoration. This is accomplished by estimating damage prior to the storm's arrival, assessing actual damage and estimated time of total restoration immediately after the storm exits, and producing specific damage assessment information for restoration forces.

## Organization Chart



The following flowchart describes the damage assessment functional process:

The Damage Assessment sub-processes include the following:

- Statistical Damage Assessment
- Backbone Assessment
- Pole to Pole Damage Assessment
- Tree Sweep
- Final Sweep

## **Statistical Damage Assessment**

This sub-process validates the resource model and 'gauges' the storm.

The following personnel are engaged in Statistical Damage Assessment:

- Damage Assessor (DA2A1)
- Damage Assessor Support (DA2A1A)
- Operations Center Damage Assessment Coordinator (DA2A)
- Regional Damage Assessment Coordinator (DA2)
- System Damage Assessment Coordinator (DA1)

The flowchart below provides a detailed view of this sub-process:

## **Backbone Assessment**

This sub-process provides data for restoring the 'backbone' of the distribution systems, models TCA/OMS, and determines the number of customers who are out of service.

The following personnel are engaged in Backbone Assessment:

- Damage Assessor Support (DA2A1A)
- Damage Assessor (DA2A1)
- Operations Center Damage Assessment Coordinator (DA2A)
- Regional Damage Assessment Coordinator (DA2)
- System Damage Assessment Coordinator (DA1)

The flowchart below provides a detailed view of this sub-process:

## **Pole to Pole Damage Assessment**

This sub-process determines the location and nature of damage, develops crew work plans, models trouble call analysis (TCA) and outage management system (OMS), and develops estimated times of restoration by feeder.

The following personnel are engaged in Pole to Pole Damage Assessment:

- Damage Assessor Support (DA2A1A)
- Damage Assessor (DA2A1)
- Operations Center Damage Assessment Coordinator (DA2A)
- Regional Damage Assessment Coordinator (DA2)
- System Damage Assessment Coordinator (DA1)
- Environmental Lead (DA/ENV1)

**The flowchart below provides a detailed view of this sub-process:**

**Tree Sweep**

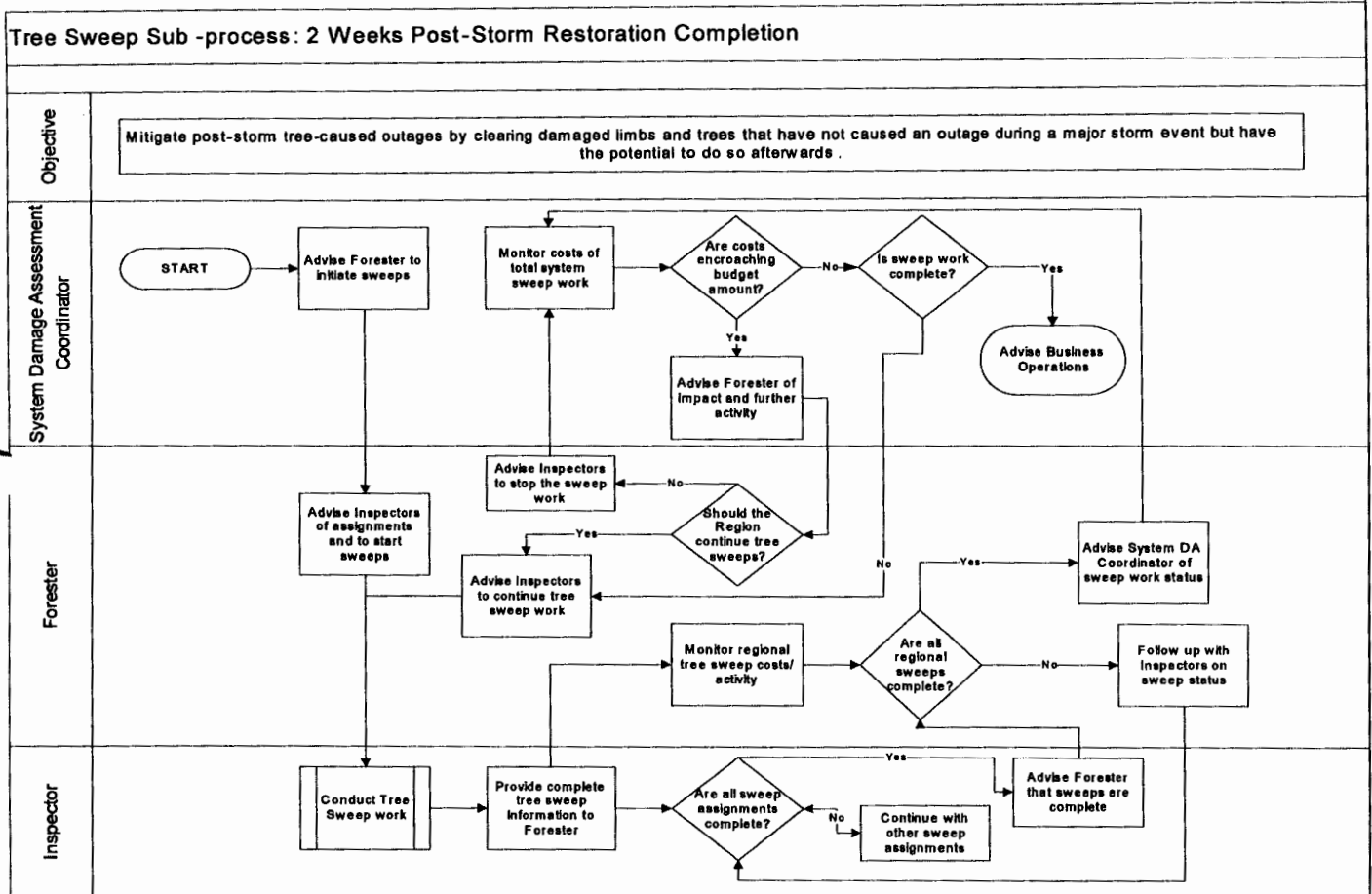
This sub-process mitigates post-storm, tree-caused outages by removing damaged limbs and trees that have not caused an outage during the event but have the potential to do so afterwards.

The following personnel are engaged in Tree Sweep:

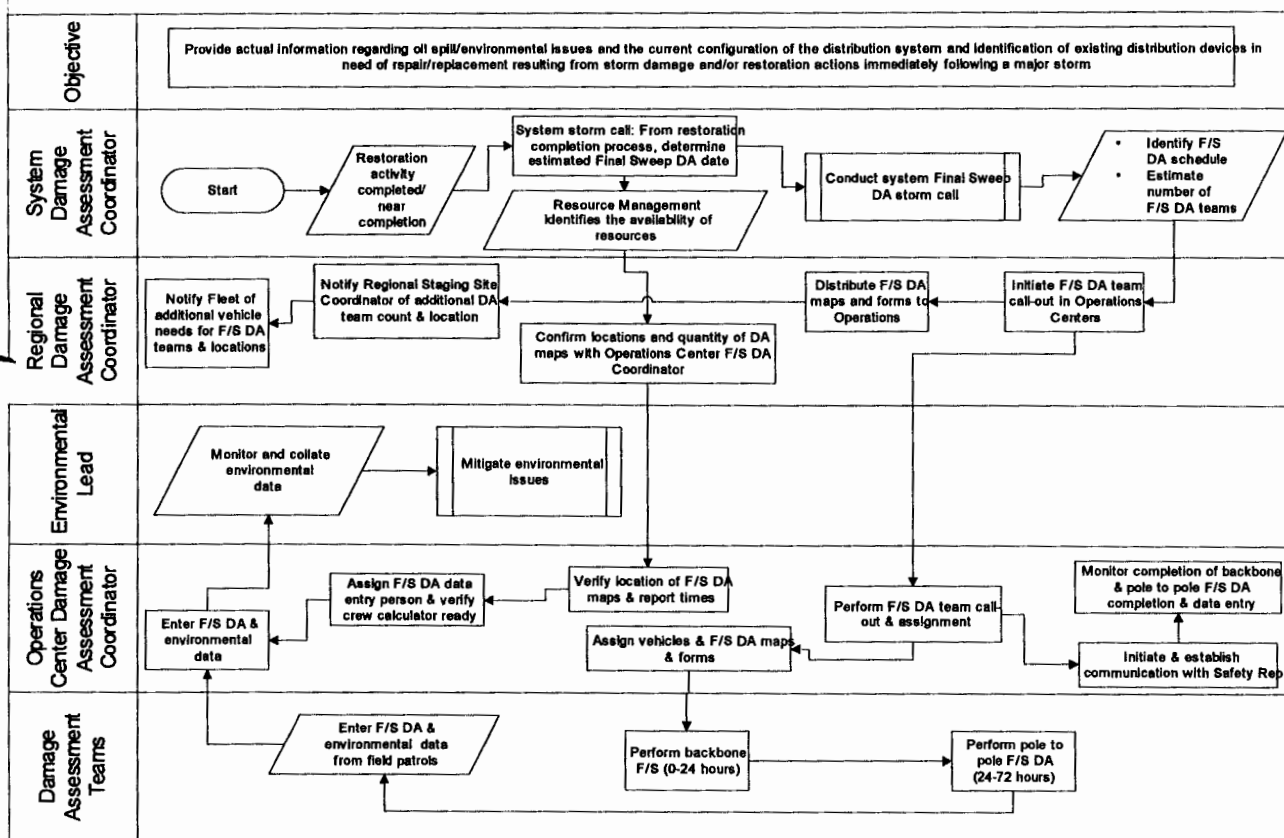
- Business Operations
- Foresters
- Inspector
- System Damage Assessment Coordinator (DA1)

The flowcharts below provide a detailed view of this sub-process:

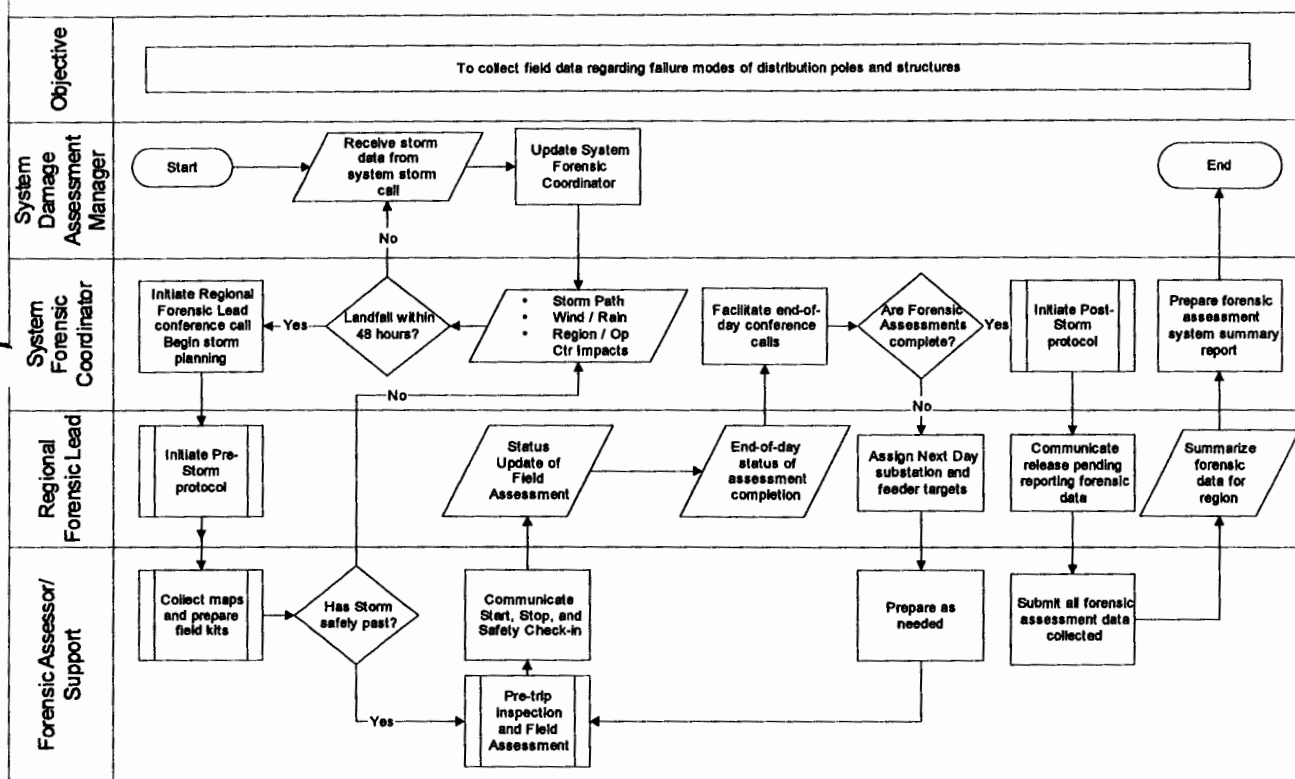




# Final Sweep Sub-process



# Forensic Assessment Sub-process



**After Major Storm**

- Demobilize deployed Damage Assessment teams
- Process billing and invoices for retirees and contractors
- Lead lessons learned activities
- Provide input into DSSOP improvement
- Refurbish Damage Assessment kit materials

**Training Requirements**

**Before Major Storm**

- Review DSSOP and recent lessons learned to ensure understanding of “the big picture” as it pertains to damage assessment, restoration, and customer communications
- Participate in developing storm drill scenarios to ensure readiness of all those involved in the damage assessment process
- Communicate with Human Resources to obtain lists of recent retirees for recruiting purposes
- Review and test tools to ensure workability and competency of users: Resource Tracking, Damage Assessment Data Entry, Damage Assessment ETR (Web-based)
- Review Damage Assessment training module for potential enhancements
- Develop and implement Damage Assessment training classes for newly recruited Damage Assessors (DA2A1) and contractors
- Communicate with Damage Assessors (DA2A1) to enlist support for upcoming storm season

**Battlefield Promotion Success Factors**

- Coordination with corporate storm team to ensure awareness of the damage assessment process and requirements
- Coordination and linkage with Regional Damage Assessment Coordinators (DA2) and Operations Center Damage Assessment Coordinators (DA2A) to ensure an overall understanding of the damage assessment process, and to make sure that needed maps are in place, Damage Assessment Data Entry and ETR tools are functional, and Damage Assessment resource-sharing capability is available
- Awareness of storm conference call schedule (all processes)
- Coordination with Transmission Department storm team for potential helicopter resources

**Engaged in the Following Sub-processes**

- Predictive Modeling
- Statistical Damage Assessment
- Pole to Pole Damage Assessment
- Backbone Assessment
- Tree Sweep
- Final Sweep
- Estimated Time of Restoration Management
- Forensic Assessment

## **Training Requirements**

### ***Before Major Storm***

- Review Region Storm Plan and recent lessons learned to ensure understanding of "the big picture" as it pertains to damage assessment, restoration, and customer communications
- Review and test tools to ensure workability and competency of users: Resource Tracking, Damage Assessment Data Entry, and Damage Assessment ETR (Web-based)
- Provide the DA training/safety awareness presentation at the DA staging sites prior to dispatching DA teams

### **Battlefield Promotion Success Factors**

- Coordination with Region storm team to ensure awareness of the damage assessment process, requirements, and resource-sharing capability in the event the region is not impacted by a major storm (i.e., how many Damage Assessment teams can be supplied to the DSSC)
- Coordination and linkage with System Damage Assessment Coordinator (DA1) and Operations Center Damage Assessment Coordinators (DA2A) to ensure overall understanding of damage assessment process and readiness (maps in place, Damage Assessment Data Entry and ETR tools functional, etc.)
- Awareness of Region storm conference call schedule
- Promoting safety!!!

### **Engaged in the Following Sub-processes**

- Pole Forensic Damage Assessment
- Statistical Damage Assessment
- Backbone Assessment
- Pole to Pole Damage Assessment
- Final Sweep

## **DA2A: Operations Center Damage Assessment Coordinator**

### **Job Function**

The Operations Center Damage Assessment Coordinator is responsible for the overall readiness of the damage assessment process within the assigned Operations Center.

### **Job Description**

- Understand the Damage Assessment Storm Plan and communicate effectively within the Operations Center to ensure that the damage assessment process is in a ready state
- Communicate with Regional Damage Assessment Coordinator (DA2) to ensure linkage with the DSSOP
- Participate in lessons learned activities following major events to ensure continual improvement

### **Key Interface Points**

- Operations Center storm team
- Regional Damage Assessment Coordinator (DA2)
- System Damage Assessment Coordinator (DA1)

### **Checklist of Actions**

#### ***Before Major Storm***

- Participate in training of Operations Center Damage Assessment personnel
- Stay linked with Regional Damage Assessment Coordinator (DA2) to ensure readiness
- Ensure that the most current version of the ETR tool is on appropriate Operations Center computers and that designated personnel are trained in its use
- Maintain Damage Assessment kits in the Operations Center and provide local maps as needed
- Ensure that adequate feeder and statistical maps are available for Damage Assessment use
- Provide directions and addresses to beginning points of all statistical sampling maps

## **DA2A1: Damage Assessor**

### **Job Function**

The Damage Assessor performs field damage assessments.

### **Job Description**

- Understand the Damage Assessment Storm Plan and communicate effectively across the Region to ensure that the damage assessment process is in a ready state
- Oversee Damage Assessment teams, making sure that they are properly prepared, equipped, and housed
- Conduct refresher and safety trainings with Damage Assessment teams
- Track progress of damage assessment work and move resources as needed
- Communicate with the System Damage Assessment Coordinator (DA1) to ensure linkage with the DSSOP

### **Key Interface Points**

- Feeder/Field Coordinators (OPS2C1A)
- Operations Center Damage Assessment Coordinators (DA2A)
- System Damage Assessment Coordinator (DA1)

### **Checklist of Actions**

#### **Before Major Storm**

- Attend Damage Assessment briefing to get assignment, team information, and up-to-date weather update
- Attend pre-storm season training to ensure familiarity with:
  - Damage assessment process, forms, etc.
  - ETR tool review
  - Maps to Operations Centers and staging sites

#### **During Major Storm**

##### **Before traveling to location:**

- Access Storm Center Website ("Current Information") and print Damage Assessment assignment document.
- Download current Distribution Information System (DIS) Field View data for assigned area (optional)
- Notify assigned Operations Center of schedule, estimated time of arrival of teams, and preparations needed prior to arrival (vehicle assignment, etc.)
- Determine whether the Operations Center has resource needs (Network routers, office supplies, hardhats, etc.)

##### **Before storm, after arriving at assigned location:**

- Review skill level of assigned Damage Assessment team members
- Access Storm Center Website ("Current Information"), and print copy of most current Damage Assessment assignment document and other information, and provide to Damage Assessment team members
- Ensure that Damage Assessment vehicles are in place and obtain keys
  - Record vehicle and tag information for each assigned vehicle
  - Remind Damage Assessment team members to return vehicles to point of origin
- Provide "just in time" Damage Assessment refresher training to all Damage Assessment teams immediately prior to major storm event.  
Suggested meeting format:
- Briefly cover "Damage Assessment Why Do It?" and "Damage Assessment Requirements" slides



After completion of restoration work:

- Document:
  - Follow-up work for crews
  - Transformers and poles left in field
  - Oil spills requiring clean-up
- Ensure that Damage Assessment teams return all Damage Assessment kits, lights, rental vehicles and keys, and associated items to the Operations Center when released
- If Damage Assessment teams are relocated to other Operations Centers, where the total number of Damage Assessment teams deployed exceeds the set number for the Operations Center, ensure that teams carry Damage Assessment kits with them
- Ensure that Damage Assessment kits are returned to the Operations Center of origin

### **Training Requirements**

- Review Damage Assessment training materials
- Arrange to attend a Damage Assessment training class if not trained or if not deployed as a Damage Assessor in the last three years
- Communicate any changes in contact numbers (home, work, cell phone, e-mail address, etc.) to System Damage Assessment Coordinator (DA1)
- Keep abreast of major weather developments and proactively contact System Damage Assessment Coordinator (DA1) regarding availability

### **Engaged in the Following Sub-processes:**

- Statistical Damage Assessment
- Backbone Assessment
- Pole to Pole Damage Assessment
- Final Sweep
- Estimated Time of Restoration Management

## **DA2A1A: Damage Assessor Support**

### **Job Function**

This position is typically filled by personnel with no experience in distribution or transmission systems. This position will work with the Damage Assessor.

### **Job Description**

This position is primarily responsible for:

- the safe operation of the patrol vehicle
- entering damage assessment data that Damage Assessor has identified
- performing pre-flight inspections of vehicle
- participate in pre-job briefings prior to each assessment

## **DA3A: Regional Forensic Lead**

### **Job Function**

This position is responsible for the execution of a forensic review of the assigned region and for coordinating the field activities of the Forensic Assessors and Forensic Support functions.

### **Job Description**

The Regional Forensic Lead will be responsible for identifying, recruiting, and training team members to perform Forensic Assessment. In addition, this position will:

- Participate in pre-storm conference call with System Forensic Coordinator at least 48 hours prior to expected landfall to determine high-priority substations for Forensic Assessment and additional calls, as needed.
- Communicate team assignments and expected initial reporting time/location to Forensic Assessor and Forensic Support team members 48 hours in advance of expected landfall
- Secure and assign vehicles for all Forensic Assessment teams within the region
- Determine and communicate daily substation and feeder assignments by team
- Establish protocols and timelines with Forensic Assessment teams within the region for communicating daily start, stop, and safety check-in times and notify system Damage Assessment Manager and System Forensic Coordinator if communication is not established with teams as expected.
- Participate in end-of-day conference calls with System Forensic Coordinator and other Regional Forensic Leads to determine the system-wide status of Forensic Assessment and assign assessment locations for the following day
- Provide complete Region Substation Forensic Summary Reports to System Forensic Coordinator within 1 week after storm restoration activity has been completed

### **Key Interface Points**

- System Forensic Assessment Coordinator (DA3)
- Forensic Assessor (DA3A1)
- Forensic Support (DA3A1A)

### **Checklist of Actions**

#### **Before Major Storms**

- Ensure Regional Forensic Assessment organization has been staffed and trained

#### **During Major Storm**

- Pre-Storm Protocol
  - Participate in pre-storm conference call with System Forensic Coordinator and other Regional Forensic Leads at least 48 hours in advance of expected landfall to determine resource needs and potential Day 1 assessment locations by substation and feeder.
  - Communicate team assignments and expected initial reporting time/location to Forensic Assessor and Forensic Support team members 48 hours in advance of expected landfall
  - Secure 1 vehicle for each 2 person Forensic Assessment team expected for the region
  - Provide final call to Forensic Assessor and Forensic Support team members 6 to 24 hours in advance of expected landfall to confirm team assignment and substation feeder assignments.
  - Establish protocols and timelines with Forensic Assessment teams within the region for communicating daily start, stop, and safety check-in times and notify system Damage Assessment Manager and System Forensic Coordinator
- Obtain status report from Forensic Assessment teams prior to end-of-day conference call with System Forensic Coordinator and other Regional Forensic Leads
- Participate in end-of-day conference calls with System Forensic Coordinator and other Regional Forensic Leads to determine the system-wide status of Forensic Assessment and assign assessment locations for the following day

**During Major Storm**

- Print or collect current statistical grid, distribution feeder, and local road maps that correspond to assigned substations and/or feeders
- Prepare daily field kit to consist of at least:
  - Strobe light
  - Supply of Forensic Assessment Forms (sufficient number for assigned area)
  - Emergency numbers
  - Forensic Assessment team member contact numbers
  - Local Operations Center contact numbers
  - Water
  - Personal items
- Have ready access to additional PPE for Forensic Support team member if needed
- Initiate contact with assigned Forensic Support team member to confirm reporting location and time
- Check-out vehicle
- Conduct pre-job briefing with Forensic Support prior to departing local Operation Center to ensure all materials and resources are available and are in safe working order
- Communicate start, stop, and safety check-in times with Regional Forensic Lead as required
- Facilitate safe navigation to and from Forensic Assessment locations
- Conduct field Forensic Assessment of all assigned substations and/or feeder locations and ensure a Forensic Assessment form has been completed with the required data for each pole identified as damaged or in need of repair
- Provide direction to and supervision of Forensic Support to facilitate efficient and safe collection of data
- Report daily observations and status update to Regional Forensic Lead as assigned
- Communicate daily assignments and meeting logistics information to assigned Forensic Support team member

**After Major Storm**

- Return vehicle
- Complete and submit hardcopy checklist to Regional Forensic Lead for each pole identified as damaged or in need of repair no later than 2 days after restoration activity has been completed

**Engaged in the following Sub-process:**

- Forensic Assessment

**DA3A1A: Forensic Support****Job Function**

This position will provide field support to the Forensic Assessor in the collection of required data during Forensic Assessment in the field.

**Job Description**

This position is responsible for:

- Participating in pre-job briefings
- Safe operation of assigned passenger vehicle
- Cataloguing time, location, and other required data for each pole identified as damaged or in need of repair
- Assisting in the preparation of summary reports for use by the Regional Forensic Lead

**Key Interface Points**

- Forensic Assessor
- Regional Forensic Lead

**During Major Storm**

- Interface with Ops Center Damage Assessment Coordinators to identify non-emergency environmental events requiring response (interface may be accomplished by use of electronic environmental tool)
- Monitor assigned regional environmental updates from Ops Center DA Coordinators
  - Develop environmental response plan from this information
- Receive emergency environmental calls from field personnel and mitigate issues
- Oversee environmental response activities
- Interface with environmental regulatory agencies
- Provide internal communications/updates
- Coordinate environmental responses as part of DA sweeps

**After Major Storm**

- Coordinate collection and management of environmental data
- Ensure environmental issues are completed in a timely manner
- Ensure proper accounting and processing of environmental related storm costs
- Participate in lessons learned and process enhancement

**Tools and Information Needed**

- Damage assessment data
- Internal and external communication ability
- Environmental contact list
- Environmental Response contractor list
- Distribution and Transmission team contacts

**Training Requirements**

- Job related functions

**DA/ENV1A: Environmental Support**

**Job Function**

The environmental support person will typically be in the field overseeing environmental response activities. This position will report to and follow the direction of the Environmental Lead. During periods where environmental response is not required, this position will provide, as needed, support to storm restoration activities.

**Job Description**

- Direct environmental response contractors and other resources performing environmental response activities.
- Ensure sufficient environmental resources are available for each response need in coordination with the Environmental Lead's direction
- Interface with environmental regulatory agencies as necessary
- Provide updates and status of environmental response activities to Environmental Lead
- Direct environmental response activities during final storm sweeps

**Key Interface Points**

- Environmental Lead (DA/ENV1)
- Operation Center Storm Personnel
- Transmission Storm Personnel

Document title

# IT&T Crisis Response Plan

Document number

**ITS-SUBS-00417**

Applies to: Progress Energy Carolinas, Inc.; Progress Energy Florida, Inc.; Progress Energy Service Company, LLC

Keywords: information technology; NERC-CIP Compliance information technology - IT&T crisis response plan

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**2. Transition Phase:**

- a. IT establishes one virtual IT Crisis Management team covering the various IT functional areas, with one IT Crisis Director who interfaces with the IT Executive Contact plus their alternate(s), and one or more IT Crisis Managers to assist with logistics and administration.
- b. Some IT groups and Business organizations begin to blend their operations and support process into a single entity.
- c. IT Support groups revise their individual plans into a single plan for the function.
- d. IT Crisis Managers update the IT Crisis Management process to reflect single points of contact for support plans.

**3. Final Phase:**

- One consolidated IT Crisis Management organization; roles identified and assigned, one communication process for 360°-communication (Executives, Support teams, Business Customers).

**Note:** IT&T Crisis Director/Manager and IT Crisis Director/Manager may be used interchangeably throughout this and other crisis documentation, but these are the same role.

**2.0 SCOPE**

The scope of this document includes all units and sections of the IT&T Department that need to provide services and support during a crisis event. The plan covers the Progress Energy Enterprise utilizing a four-phase approach; Planning, Activation, Event Support, and Post Event.

**3.0 PURPOSE**

This plan plays a key role in restoring critical IT&T equipment and applications for Progress Energy personnel and units working to restore power and service to its customers. This document has a four-fold purpose:

- 1) Provide a corporate overview of crisis activity;
- 2) Provide a detailed guide and checklist for each operational section for reference during crisis preparation;
- 3) Provide an operational crisis plan for command and control and;
- 4) A work plan for the IT&T staff. This document is intended to be flexible to be leveraged during any crisis.



All significant incidents are escalated to the TCC and/or TSD Incident Manager (IM). If the incident is a known potential crisis (ex. CDC catches on fire), the TSD and/or TCC IM would immediately escalate to the IT&T Crisis Director. Otherwise, Incident Transition Guidelines (FRM-ITDX-00032) have been documented to assist the TCC & TSD IM's on when to escalate incidents to a crisis level.

Once the IT&T Crisis Director has declared a crisis, the IT&T Crisis Management Team is activated. This team will act as the command and control for the duration of the crisis. The IT&T Crisis Response Plan has a Response Plans section that provides crisis-specific recovery processes and procedures. For all crises, the IT&T Crisis Manager will coordinate and communicate the alert phases needed, and each group and personnel acting in their assigned roles will initiate their specific plans as outlined in the remainder of this document.

## **8.0 CRISIS PREPAREDNESS PHASES**

There are four crisis preparedness phases: planning, activation, event support and post event. A summary of what each phase entails is detailed below.

### **Planning**

This phase includes tracking of conditions that may lead to a crisis event. The IT&T Crisis Manager maintains communications with the IT&T Significant Incident Management team (TCC & TSD Incident Managers), Energy Delivery Corporate Storm Team, and other staff to begin preparations on Activation.

### **Activation**

Once either the Enterprise Crisis Management Team or the Energy Delivery Corporate Storm Team has declared a crisis situation, all units within Progress Energy should begin preparations for the crisis event. Pre-crisis activities are executed.

### **Event Support**

The level of crisis support will be determined by the extent of impact to the enterprise.

- Level 1 support provides for a minimal amount of on site support in the event of crisis with only minimal regional impact.
- Level 2 support provides coverage in the event of widespread local impact with significant regional impact.
- Level 3 support provides coverage in the event of widespread local and regional impact with all data and voice communications between the CDC and Energy Delivery field operations lost.

This can be pre-crisis or after the danger of the crisis has passed and it has been determined that the staff can be deployed safely. This phase includes the monitoring of systems and ensuring that critical systems are available. If crisis necessitates, teams have been deployed and are at their designated location. The IT&T Crisis Center is established at the Corporate Data Center to provide coordination efforts needed to support enterprise in crisis response. Service to areas not affected by the crisis is continued. For more details on the IT&T Crisis Center, see the Crisis Center Standards Section.

- **Software:** \\nt000036\Dept\IT&T DR Information\Lists of IT&T Designated Representatives\Recurring Cost Application DR.mdb
- **Telecom Service:** \\nt000036\dept\IT&T DR Information\Lists of IT&T Designated Representatives\Telecom Services DR List.xls
- **Telecom Providers:** \\nt000036\dept\IT&T DR Information\Lists of IT&T Designated Representatives\Telecom Providers List.xls

## **11.0 RESPONSE PLANS**

The IT&T Crisis Response Plan defines the response phases, command and control, roles and responsibilities, etc. that can be used during any type of crisis. IT&T has developed thorough response plans for certain types of potential crises that require additional actions. These plans are referenced below with a description of when each should be leveraged.

### ***Business Continuity Plans***

#### **IT&T Business Continuity Plan (BCP)**

The IT&T BCP defines how the department will respond if there is a loss of people, work area, and/or resources. In addition, it specifies the departments' critical functions as identified during the Business Impact Analysis (BIA) process.

#### **IT&T Pandemic Response Plan**

The IT&T Pandemic Response Plan provides a phased approach to responding to a pandemic event. It defines activities for phases of a Pandemic, essential roles and head counts for each unit in the department, potential remote access needs and changes, etc. This document should be referenced during events such as a bird flu pandemic.

#### **Telecom Continuity & Recovery Plan**

Plan provides an overview of Progress Energy telecommunication infrastructure along with the continuity and recovery strategies employed in the event of a facility loss. This document is intended for individuals with limited exposure to the telecommunications environment.

### ***Disaster Recovery Plans***

#### **Corporate Data Center Disaster Recovery Plan (CDC DR)**

The CDC DR plan (located at \\nt000036\share1\IT&T Crisis Plan\Documentation\CDC DR) details the actions that need to be taken if the CDC facility was unavailable. This document includes DR activities for Red (Activation & Recovery) and Blue (Resolution & Restoration) phases and appendices specific to this sites recovery operation.

#### **Production Services (PEB LL) Disaster Recovery Plan**

The Production Services DR plan (located at \\nt000036\share1\IT&T Crisis Plan\Documentation\PEB LL DR) details the actions that need to be taken if the Progress Energy Building Lower Level (PEB LL) site was unavailable. This document includes DR activities for Red (Activation & Recovery) and Blue (Resolution & Restoration) phases and appendices specific to this sites recovery operation.

### **Ongoing notification**

During a crisis (outside of a storm event), the CIO and/or his/her delegate will be a member of the Enterprise Crisis Management Center (ECMC) and will provide ongoing notifications to the IT&T Crisis Manager.

During a storm event, the IT&T Crisis Manager will attend Energy Delivery storm briefings and conduct follow-on IT&T departmental crisis calls subsequent to each Energy Delivery storm briefing.

The IT&T departmental crisis calls will be attended by all IT&T crisis team leads and the IT&T Leadership Team throughout the crisis. The IT&T Crisis Manager will provide these attendees the audio conference phone number and conference room prior to the first call and utilize the same number and room throughout the crisis event.

The content of IT&T departmental crisis calls will include:

- Safety focus
- If applicable, Weather – storm progress and projections
- Damage report
- Mobilization plans and status
- If applicable, Customer Service Center's latest outage numbers
- IT&T crisis teams status – outage reports and projections; telecom/network, systems and applications status; abnormal conditions; and progress of other technical support status and activities
- Need for volunteers
- Next update time

The Communications Team will summarize the contents of these departmental crisis calls and

- Distribute the summary via e-mail to all IT&T staff
- Update the IT&T Crisis Web site
- Update the crisis phone line

### **Final notification**

When the crisis event is over, the Communications Team will publicize termination of the event as above.

Within 48 hours of the end of the crisis event, the Communications team will update the IT&T Crisis Web site and crisis phone line with the statement "IT&T is not currently in crisis mode."

### **Alternate notification process**

If during a crisis, email communications are unavailable and phone lines are congested the IT&T Crisis Director and Manager and their back-ups have been given a GETS (Government Emergency Telecommunications System) card which allows priority access to the phone system during a crisis.

## **15.0 IT&T CRISIS TEAM ROLES & RESPONSIBILITIES**

### **15.1 IT&T Crisis Director (ITT 1)**

#### **Job Function**

The Crisis Director is responsible to the IT&T Leadership Team for all IT&T crisis related activities.

#### **Job Description – Roles & Responsibilities**

##### **Planning Phase**

- Receive crisis updates from the Enterprise Crisis Management Center (ECMC), CIO or his/her delegate, or for severe weather updates from the Crisis Manager based on notification from WSI and/or Energy Delivery
- Receive notification from the Enterprise Crisis Management Center (ECMC), CIO or his/her delegate, or the Crisis Manager that Energy Delivery has initiated the Corporate Plan
- Designate alternate IT&T Crisis Manager for event, if necessary
- During initial notification review, as appropriate for the crisis, the following:
  - Response Plans referenced in Section 11.0 of this document
  - Energy Delivery assessments and plans for any corporate Storm Plan activation with Storm Manager

##### **Activation Phase**

- Officially declare activation of IT&T Crisis Mode

##### **Event Support Phase**

- Notify the IT&T Leadership Team of any critical items (abnormal conditions, IT&T outages, staffing issues, customer comments, etc.)
- Determine if the level of crisis support continues to be appropriate based on crisis severity
- Advise and coordinate with Technology Support Services, Distributed Technology Operations, Technology Operations Center, Infrastructure & Security Services, Technology Management Services, Technology Service Desk, and Technology Command Center to determine the service areas threatened and the level of activation for each group
- Working with CIO or his/her delegate and Enterprise Crisis Management Center (ECMC) to ensure that PGN Executive Management is kept appraised of IT&T activities
- During storms, participate in Energy Delivery conference calls as required
- Initiate any IT&T crisis conference calls as needed

##### **Post Event**

- Officially declare end of IT&T Crisis Mode
- Provide input to Lessons Learned and updates to IT&T Crisis Response Plan
- Approve updates and changes to the IT&T Crisis Response Plan

- Initiate and lead IT&T Crisis call
- Assist IT&T Crisis Director, as needed, in providing status for CIO or his/her delegate and Enterprise Crisis Management Center (ECMC) to ensure that PGN Executive Management is kept apprised of IT&T activities
  - For storms, participate in Energy Delivery conference calls
- Review progress of crisis check lists

#### **Event Support Phase**

- Communicate regularly with IT&T Crisis Director or ED Storm Director
- Keep legacy Duke Energy counterpart informed of actions being taken
- Inform of any critical items (abnormal conditions, IT&T outages, staffing issues, customer comments, etc.)
- Determine if the level of crisis support continues to be appropriate based on crisis severity
- Assist IT&T Crisis Director, as needed, in providing status for CIO or his/her delegate and Enterprise Crisis Management Center (ECMC) to ensure that PGN Executive Management is kept apprised of IT&T activities
  - Participate in Energy Delivery conference calls
- Review progress of crisis check lists
- Initiate and lead IT&T Crisis calls
- Coordinate with IT&T Crisis Communications Coordinator for e-mail and voice mailbox updates
- Advise and coordinate with Technology Support Services, Distributed Technology Operations, Technology Operations Center, Infrastructure & Security Services, Technology Management Services, Technology Service Desk, and Technology Command Center to determine the service areas threatened and the level of activation for each group
- Coordinate and communicate the alert phases needed for each group
- Provide ongoing notifications regarding crisis status to IT&T Leadership, TOSS Leadership, Application Development managers, and Crisis Team primary contacts
- IT&T Crisis Manager or a designee would act as the authoritative role for any changes requested through the Change Management Process
- Ensure IT&T Crisis web site is updated with appropriate event information

#### **Post Event**

- Termination of the event
- Provide input to Lessons Learned and updates to IT&T Crisis Response Plan
- Working with IT&T Process/Plan Coordinator, identify and communicate process improvements and plan documentation updates.

#### **Key Interface Points**

- IT&T Crisis Director (ITT 1)
- All personnel in IT&T Crisis team leadership roles
- Energy Delivery Storm Team
- IT&T Crisis Manager counterpart at legacy Duke Energy

## 15.4 Crisis Administrative Assistant Lead (ITT 4)

### Job Function

The Administrative Assistant Lead will provide administrative support to the Crisis Manager and Director and coordinate any other administrative resource needs.

### Job Description – Roles & Responsibilities

#### **Planning Phase**

- Assist the Crisis Director and Crisis Manager as required
- Request local administration personnel to produce hardcopies of the IT&T phones lists. This information will then be available at all locations and will be used in the event of system problems. Phone lists are available in the Checklist/Supporting tools section below.
- Coordinate/assign members if the Administrative Assistant Unit is needed to help out with crisis duties
- Certain Critical Supplies contacts are listed in the chart below. For additional guidance reference, the Vendor, Supplier, and External Party Escalation Section of this document.

Function	Critical Supplies	Contact
Technology Operations Center	As requested by IT&T Crisis Director or IT&T Crisis Manager	Corporate Services
Critical IT&T Facilities	Fuel supply for generators	Real Estate
Unmanned Network Sites	Fuel supply for generators	DTO handles this internally
Telecom Field Operations	Fuel for vehicles	Fleet
Desktop Support for key locations	Fuel for vehicles	Fleet
Desktop computers and related supplies	No action needed - adequate supplies/assets in FL and Carolinas	n/a
Network Support	No action needed - adequate supplies/spares in both Florida and Carolinas	n/a
Server/Application Support	No action needed - limited spares are maintained and the Extended Data Center can supply additional server support if required	n/a

#### **Activation Phase**

- Assist Logistics Coordinator with the IT&T Crisis center setup
- Assist Logistics Coordinator with coordination of logistics (Lodging, meals and etc)

#### **Event Support Phase**

- Assist with maintaining specific IT&T Section crisis rooms or work locations, maintaining current contact and staffing lists, and providing other support as required
- Provide other support as required



- Coordinate with the following to ensure restoration of all transport and telecommunications services:
  - Telecommunications Vendors: Sprint, Qwest, BellSouth, Verizon  
NOC Level 2
  - Review remote generators and fuel status
  - Open Systems Engineering
  - Transport Network – Level 3 Communications
  - Engineering Support

#### **Post Event**

- Ensure responsibility is assigned for permanent restoration of all transport and telecommunications services in situations where temporary solutions were implemented.
- Ensure appropriate network documentation and records are updated to reflect current state.
- Provide lessons learned/updates to IT&T Crisis Response Plan

#### **Key Interface Points**

- Outside Vendors including Level 3 Communications
- Distributed Technology Operations Managers and Supervisors
- Transmission and Distribution
- IT&T Crisis Manager (ITT 2)

#### **Checklist & Supporting Tools**

##### **Telecom and NOC Crisis Process**

#### **15.6 Computer Operations (ITT 6)**

##### **Job Function**

The Computer Operations crisis manager will coordinate activities to ensure systems remain available as needed, issues are communicated appropriately, changes are handled appropriately, and that backup up power sources are available to the data center.

##### **Job Description – Roles & Responsibilities**

##### **Planning Phase**

- Coordinate with Computer Operations personnel to ensure awareness of planned activities
- Verify fuel levels for the CDC back up generators are adequate and that dispatch fuel providers are on alert as needed.
- Review and validate the IT&T Change Management Business Continuity Plan, as appropriate

##### **Activation Phase**

- Notify Computer Operations staff that IT&T is activating the IT&T Crisis Response Plan

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- Determine any necessary pre-deployment of spare equipment from the warehouse and telecom lab and coordinate deployment.
- Determine what critical areas will require extended on-site Telecommunication Technician or DTA coverage (Call Centers, ECC, Nuclear Sites, etc)
- Identify any network maps that need to be printed and distributed.
- Determine the locations of IT&T remote storm rooms (i.e. Florida ECC, PEF) and coordinate set up.
- Working with IT&T Crisis Manager, determine locations that will require on site Field support during the event.
- Contact IT Managers at nuclear sites to determine if on site resources are needed for the Technical Support Center during the event. Establish resources and reporting time.
- Evaluate support needs for Florida ECC/DCC and communicate.
- Determine staffing of Supervisors for Customer Support (i.e. ECC, Energy Delivery Regional Command Centers)
- Identify additional resources available for operational support (Engineering staff).
- Establish Telecommunications Technician and DTA schedule/coverage for impacted field areas and areas requiring 24 hour on-site support or other on-site support during the event. Ensure the schedule addresses the appropriate number of days. Communicate schedule to employees.
- Perform pre-job briefing with Field Staff
- Create Service Requests for Crisis Readiness for the following:
  - Check fuel levels and refuel if necessary generators at impacted radio sites
  - Complete a readiness check of all portable radio trailers
  - Check fuel levels and perform readiness check of portable generators
  - Identify any Telecom sites which require flood protection (i.e. sandbags, equipment relocation, etc.)
- Identify from Crisis Director plans for support of other utility companies
  - Determine if Portable radio trailer will be needed. If so arrange for Telecommunications technician to provide support.
- Determine IT&T Crisis Response Plans
  - IT&T Crisis Center (off site from CDC)
  - Establish Dispatching Procedure (Resource Line)
  - ECC support
  - Runners and Other Field Support
  - Communicate Crisis Accounting to employees.
  - Communicate Dispatching Procedures and conduct Technician Informational Meeting
  - Coordinate with Energy Delivery any set up of Staging Areas
  - Ensure that Level 3 technicians are available as required to work with PE technicians.

**15.8 IT&T Liaison (ITT8)****Job Function**

The IT&T Liaison role will be required during crises when on site support is requested from the IT&T Crisis Manager or a business unit. The site liaison role will act as the IT&T Representative to the business units' crisis center and other sites as requested. The DTO Unit Supervisor will act as the IT&T Representative at the Region Operations crisis center to the Region VP and General Manager.

**Job Description – Roles & Responsibilities****Planning Phase**

- Ensure the necessary personal preparation has been made by staff to enable travel
- Ensure personnel have made arrangements for transportation, if not using personal vehicle, and for lodging
- Attend Regional Storm conference calls as the IT&T liaison

**Activation Phase**

- Ensure staff contact Energy Delivery Operations Manager regarding assigned location
- Communicate to staff to report to the assigned Operations Center when weather and road conditions are safe.

**Event Support Phase**

- Provide status updates for respective area during IT&T Crisis Briefing
- Provide one stop contact for the business units' crisis center for all IT&T issues/requests
- Ensure that tickets are entered in the IT&T problem resolution system
- Provide customer with status of any current issues/requests
- Work with the Technology Service Desk and NOC for proper resolution of issues
- Participate in the Region Crisis calls as the IT&T Representative
- Provide management oversight for IT&T field technicians assigned to that region
- Act as the region escalation point of contact for all IT&T incidents
- Provide feedback to IT&T Crisis manager and IT&T management team on region request and incident management

**Post Event**

- Ensure all issues/requests at Energy Delivery Operations Centers have been resolved

Typical work hours for a site liaison are 12 hour shifts (7am – 7 pm) (7pm – 7 am) until crisis center is closed. These hours may be determined by liaisons, but the Liaison Manager must be notified of the schedule. In the case of the DTO Unit Supervisor, typical work hours are the same as Region VP and/or Region General Manager. The site liaison will work off-shift from DTO Unit Supervisor

**Key Interface Points**

- IT&T Crisis Manager (ITT 2)
- Business Units' General Managers

**Checklist & Supporting Tools**

N/A

**Key Interface Points**

- IT&T Crisis Manager (ITT 2)
- IT&T Technology Service Desk (TSD) Manager (ITT 10)
- IT&T Liaisons (ITT8)

**Checklist & Supporting Tools**

Cell Phone and Radio Acquisition – Florida & Carolinas

Crisis Printer Acquisition Process

Satellite Phone Rental Process

Staging & Logistics Site Support – Obtaining Voice / Data Communications

IT Asset Request - High Level Flow Chart

Radio Rental Procedures

**15.10 Technology Service Desk (*ITT 10*)**

**Job Function**

The IT&T Technology Service Desk Manager is responsible to the IT&T Crisis Manager for the coordination of the Technology Service Desk.

**Job Description – Roles & Responsibilities**

**Planning Phase**

- Ensure that Technology Service Desk has a 5-day schedule for adequate crisis coverage
- Establish appropriate GetITT banner
- Review and update the on-call information in GetITT

**Activation Phase**

- Activate crisis mode and the schedule that was established

**Event Support Phase**

- Attend regularly scheduled IT&T Service Desk crisis planning meetings and address issues that arise
- Provides status updates for respective area during IT&T Crisis Briefing
- Establish appropriate pre-recorded VRU Service Desk message for incoming calls

**Post Event**

- Termination of the event
- Update VRU Service Desk messages to reflect normal operations
- Provide lessons learned/updates to IT&T Crisis Response Plan

**Key Interface Points**

- IT&T Crisis Manager (ITT 2)

**Checklist & Supporting Tools**

Technology Service Desk Crisis Plan

Technology Service Desk Crisis Checklist

**15.12 Applications Support (ITT 12)****Job Function**

This position provides the IT&T single point of contact with the application support teams. The position is responsible for coordinating efforts within IT&T to ensure that the enabling applications and technology to support crisis work are available as needed. Critical crisis business application support is provided primarily by IT&T's Solution Support and Solution Delivery sections and PEC DSDR 'Run' unit.

During a crisis event, business critical applications (ex. major storms applications) are supported by the IT&T teams who have responsibility the specific applications (e.g. CIMBUI, ROR, OMS, TCA/CADOPS, Damage Assessment, etc.). IT&T application points of contact are established for critical sites. During storms, Energy Delivery sites (i.e. Customer Service Center, central Distribution Dispatch) are targeted.

This position is also responsible for establishing the points of contact for these areas to ensure adequate flow of information and provide a single point of application support contact for the IT&T crisis team.

**Job Description – Roles & Responsibilities****Planning Phase**

- Coordinate/schedule IT&T resources to support applications that enable crisis recovery efforts.

**Activation Phase**

- Coordinate with IT&T Solution Support, IT&T Solution Delivery and DSDR 'Run' unit counterparts to ensure that adequate IT&T resources are in place in Carolina or Florida to support applications which support Florida or Carolina crisis events
- CSC application contacts coordinate with Security Services & User Admin to activate/deactivate corporate Crisis IDs. Contact Security Services for Carolina IDs or User Admin for Florida IDs.

**Event Support Phase**

- Serve as point of contact for overall application support
- Attend and report on CSC, Distribution Dispatch, and other critical applications during crisis-related meetings or conference calls.
- Provides status updates for respective area during IT&T Crisis Briefing
- Communicate with TOC to ensure adequate computing resources are available to handle elevated system loads
- Communicate with Change Management group to review planned outages/upgrades and cancel those that may impact the CSCs, DCCs, and others ability to address crisis events.
- Coordinate with the Service Desk to ensure adequate staffing for CSC, DCC, and others work schedules.
- Attend regularly scheduled crisis planning meetings and address issues that arise
- Leverage appropriate application disaster recovery procedures, as requested by IT&T Crisis Manager

**15.14 Safety (ITT 14)****Job Function**

This position is responsible for coordinating IT&T safety activities during crisis events, maintaining safety awareness, helping ensure work is conducted in a safe manner, and coordinating with the corporate safety function.

**Job Description – Roles & Responsibilities****Planning Phase**

- Prepare safety communications
- Establish coordination with corporate safety as needed
- Provide safety information pertinent to the crisis event and relevant to individual IT&T crisis recovery work groups (e.g., office versus field support teams)

**Activation Phase**

- Partner with each IT&T Crisis Role to help maintain a level of awareness and focus on safety within IT&T crisis recovery work groups
- Provide safety communications

**Event Support Phase**

- Partner with each IT&T Crisis Role to help maintain a level of awareness and focus on safety within IT&T crisis recovery work groups
- Provide safety communications

**Post Event**

- Communicate safety assessment results
- Lessons learned/updates to the IT&T Crisis Response Plan

**Key Interface Points**

- IT&T Crisis Manager (ITT 2)
- IT&T Crisis Director (ITT 1)
- Corporate Safety (ITT 14)

**Checklist & Supporting Tools**

N/A

**15.15 IT&T Process / Plan Coordinator (ITT 15)****Job Function**

This position is responsible for coordinating maintenance of the IT&T Crisis Response Plan, coordinating lessons learned after crisis events, and ensuring appropriate process improvements are made to the IT&T Crisis Response Plan.

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- Release employees from ITT storm support, as they become available, for use by other storm organizations
- Identify released ITT employees that are not able to support other storm organizations as "Not Available" in the RSVP tool

### **Post Event**

- Release all ITT employees from the current crisis in the RSVP tool
- Participate in any lessons learned exercises after each crisis event
- Forward lessons learned results to the System RSVP Coordinator

### **Key Interface Points**

- IT&T Crisis Manager (ITT 2)
- IT&T Crisis Director (ITT 1)
- System RSVP Coordinator Resource Management (EMG-EDGF-00052)

### **Checklist & Supporting Tools**

- RSVP Tool
- RSVP Quick Reference Guidelines
- RSVP Training Manual

## **15.17 Cyber Security (ITT 17)**

### **Job Function**

This position is responsible for ensuring cyber security incidents impacting the crisis are properly managed. As appropriate, this role will engage the proper IT Security Services leads regarding management of high risk access accounts, mainframe security, Crisis IDs, and critical cyber security requirements.

### **Job Description – Roles & Responsibilities**

#### **Planning Phase**

- Review Cyber Security Incident Response procedures (ITS-SUBS-00416)

#### **Activation Phase**

- Assist IT&T Crisis Director and Crisis Manager in activating business continuity and/or disaster recovery plans or procedures

#### **Event Support Phase**

- Serve as point of contact for IT Security Services
- Attend and report on cyber security incidents, business continuity, and disaster recovery items during crisis-related meetings or conference calls
- Provides status updates for respective area during IT&T Crisis Briefing
- Attend regularly scheduled crisis planning meetings and address IT&T security issues that arise
- Provide business continuity and disaster recovery support as requested by the IT&T Crisis Director or Crisis Manager



**Post Event**

- Conduct a review meeting with key recovery team members
- Collect event logs from the Recovery Site
- Document and catalog issues identified in the meeting and in the logs
- Identify action plans to address site recovery issues
- Ensure Disaster Recovery plans and procedures are updated per improvement plan
- Lessons learned /update to IT&T Crisis Response Plan

**Key Interface Points**

- IT&T Crisis Manager (ITT 2)
- IT&T Crisis Director (ITT 1)
- Impacted Site Commander (ITT 19)
- Cyber Security Crisis Role (ITT 17)

**Checklist & Supporting Tools****Recovery & Impacted Site Commander Resource List****15.19 Impacted (Cold) Site Commander (*ITT 19*)****Job Function**

This position will only be activated during crises that involve the loss of critical IT&T site(s). This role will be responsible for managing impacted site operations to ensure critical applications and infrastructure are available to restore business operations as quickly as possible to the primary site.

**Job Description – Roles & Responsibilities****Planning Phase**

- Not applicable

**Activation Phase**

- Manage impacted site operations to ensure critical applications and infrastructure are available to restore business operations as quickly as possible to the primary site

**Event Support Phase**

- Serve as point of contact for impacted site
- Attend and report on impacted site items during crisis-related meetings or conference calls
- Provides status updates for respective area during IT&T Crisis Briefing
- Engage resources to participate in impacted site team
- Leverage appropriate site business continuity plan, disaster recovery plans, and disaster recovery procedure(s) as requested by the IT&T Crisis Director or Crisis Manager
  - Manage Red and Blue phases of disaster recovery plans

# External Relations

Document number

EMG-EDGF-00050

Applies to: Energy Delivery – Florida

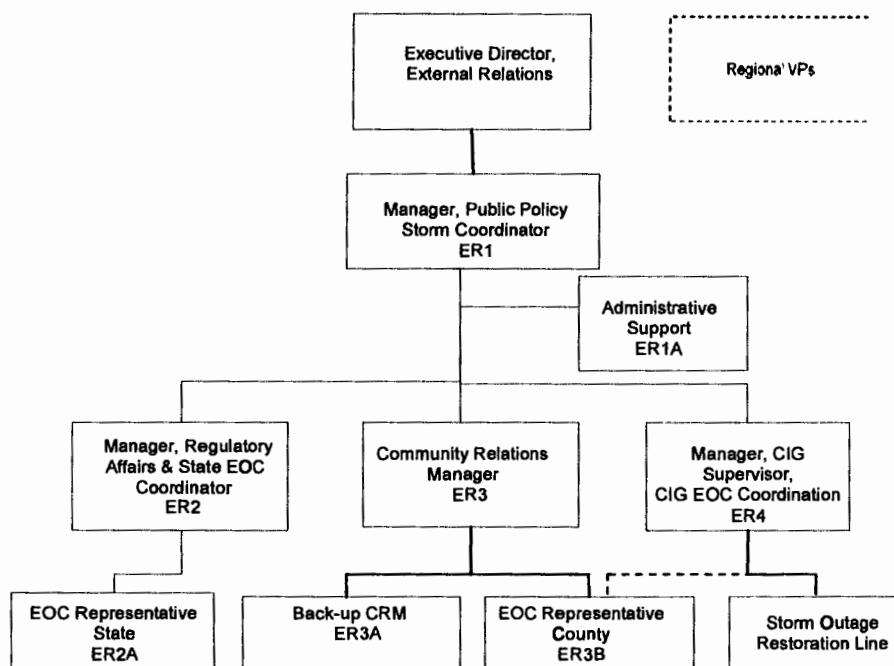
Keywords: emergency; distribution system storm operational plan

## Mission

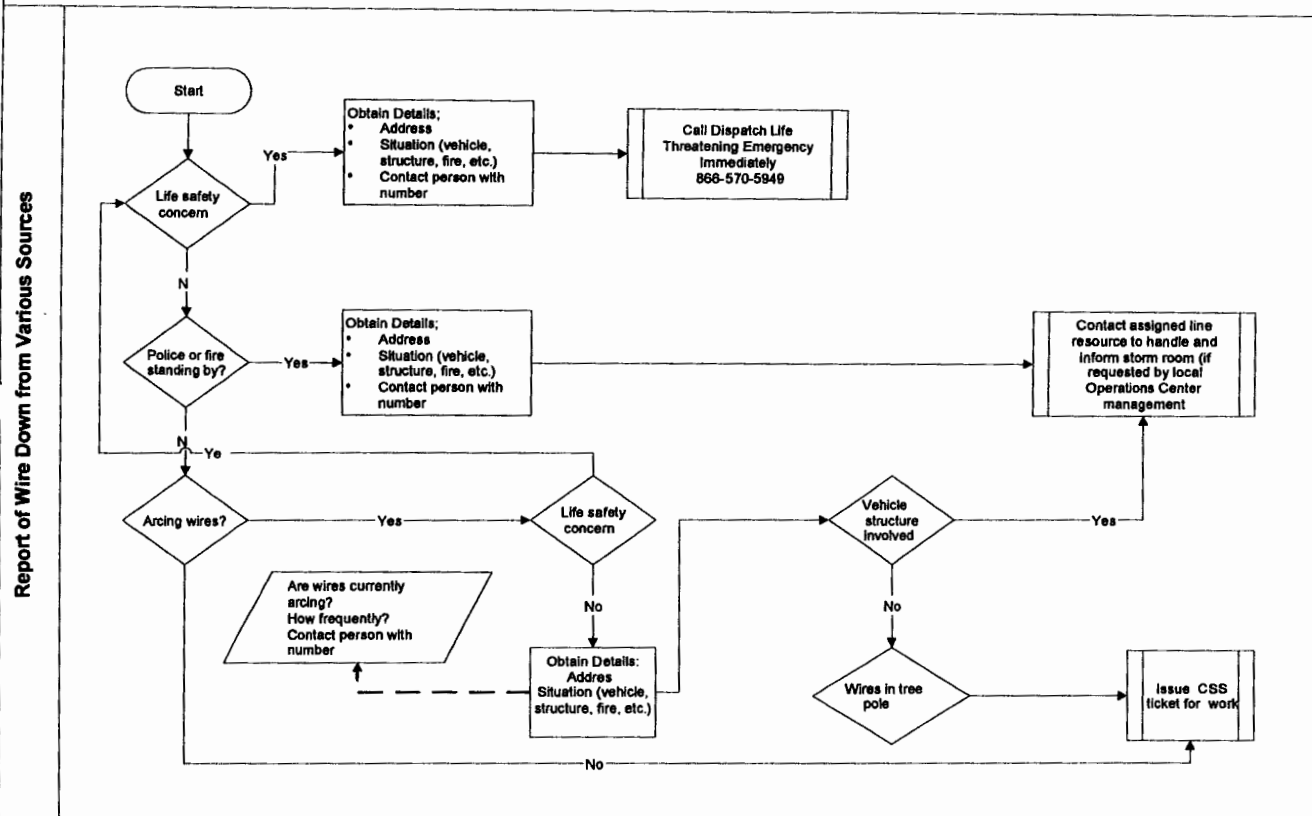
Our mission is to provide excellent customer service and collaboration with local government during emergencies through organization, commitment, strong relationships, the provision of resources and feedback mechanisms.

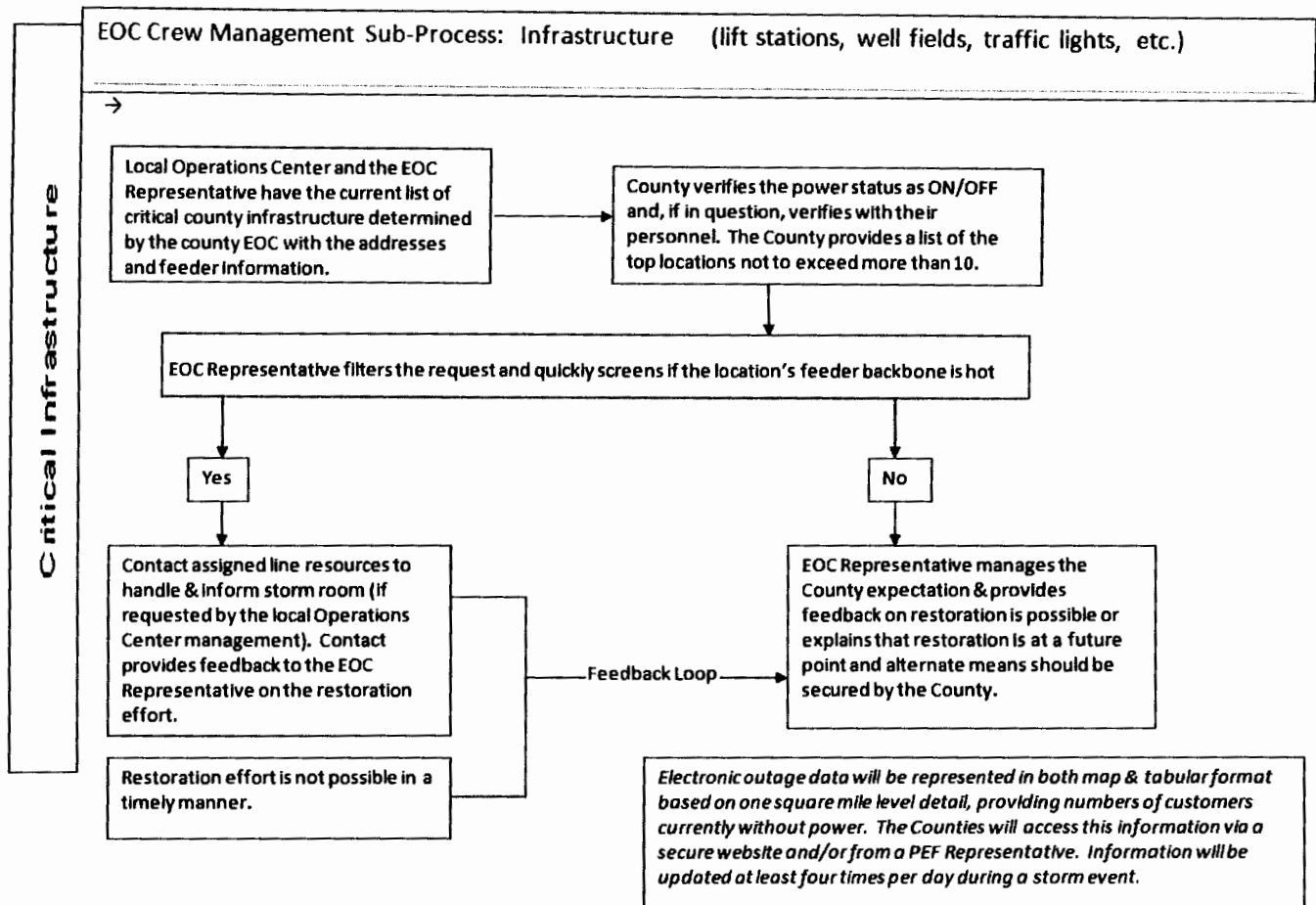
- To provide local government with the support needed to facilitate the coordination of outage restoration in a safe and efficient manner.
- To provide local government with ongoing information and updates in advance of, during and after storm events to assist them with their local storm preparation and restoration efforts including informing the public.
- To provide accurate and timely information to key leaders, commercial/industrial customers and local communities before during and after storms.
- To educate the public on proper storm preparation and restoration actions.
- To assist in the resolution of local governmental issues and concerns related to storm and emergency situations.

## Organization Chart



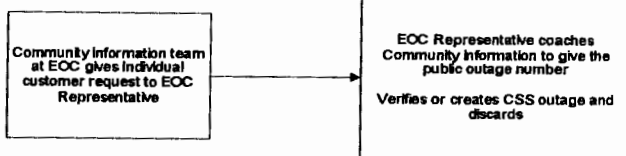
EOC Crew Management Sub-process: Wire Down



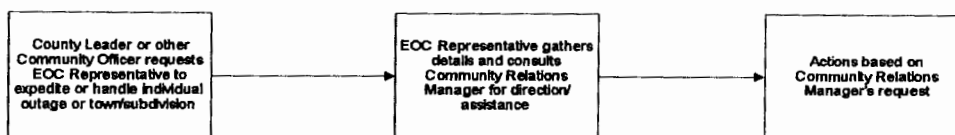


EOC Crew Management Sub -process: Other Requests

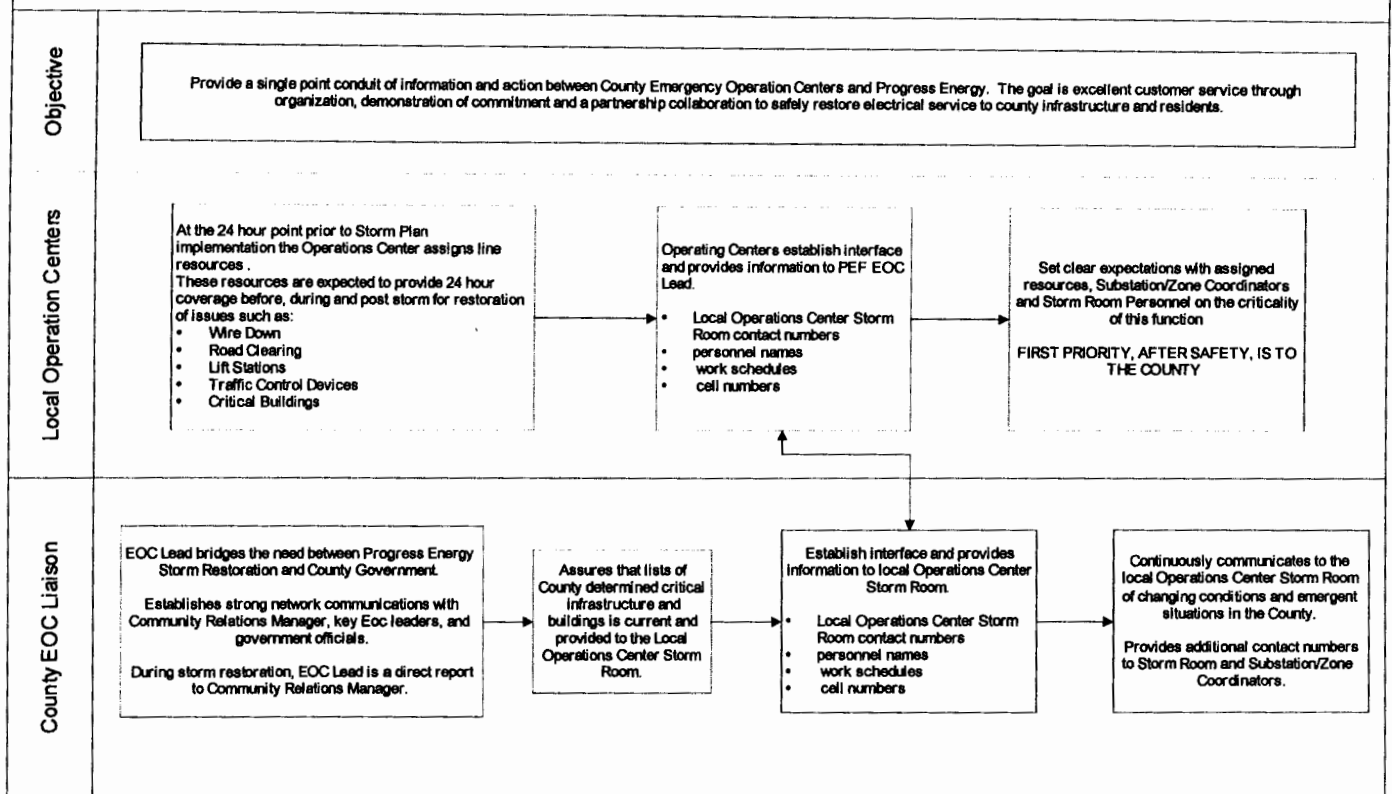
Community Information



Politically Sensitive



# EOC Communication (PEF Status) Sub-process: County Government Interface



**After Major Storm**

- Coordinate lessons learned activities and implementation of results.

**Tools and Information Needed**

- Company laptop computer
- Company cellular phone (in some cases a company radio will also be required)
- Progress Energy shirts to be worn at the EOC
- Reliable vehicle appropriate to storm impacted areas

**Training Requirements**

- General leadership experience
- Company organizational knowledge
- Working knowledge of PE distribution and transmission facilities and operational procedures
- Experience dealing with external public (e.g. elected officials) – strong communication skills
- Ability to work extended hours.

**Engaged in the Following Sub-process:**

- EOC Crew Management Sub-process: Wire Down
- EOC Crew Management Sub-process: Road Clearing
- EOC Crew Management Sub-process: Infrastructure (lift stations, well fields and traffic lights)
- EOC Crew Management Sub-process: Critical Buildings or Facilities
- EOC Crew Management Sub-process: Other Requests
- EOC Communication (PEF Status) Sub-process: County Government Interface

**ER1A: Administrative Support/RSVP Coordinator****Job Function**

The Administrative Support (ER1A) will work in the region storm center or the local operations center depending on the severity of the storm and best allocation of available personnel. The Administrative Support (ER1A) will provide clerical support to the Manager of Public Policy (ER1), before, during and after a storm event. This position will also fulfill the role of RSVP Coordinator for the ER Storm Plan. This position may also be asked to initiate and maintain communications with government and key leaders.

**Job Description**

- Take a proactive approach to providing information to all public officials, Emergency Management personnel and other identified key leaders in the area assigned by obtaining an updated list of public officials within your area of responsibility.
- Communicate with the Community Relations Managers (ER3) and EOC Representatives (ER3B) for the exchange of timely and accurate information before, during and after a major storm.
- Contact the local elected officials at the closing of the storm center to finalize the communication process.

This position as the ER RSVP Coordinator is responsible for:

- Keeping the RSVP tool updated as employees transfer in and out of the ER Storm Plan organization.
- Being the first point of contact for ER Storm Plan employees regarding RSVP questions or concerns.
- Assisting employees when signing up for their storm role.
- Participating in pre-storm season planning.

**Key Interface Points**

- Manager, Public Policy (ER1)
- Community Relations Manager (ER3)
- EOC Representative (ER3B)
- Back-up Community Relations Manager (ER3A)



**Engaged in the Following Sub-process:**

- EOC Crew Management Sub-process: Wire Down
- EOC Crew Management Sub-process: Road Clearing
- EOC Crew Management Sub-process: Infrastructure (lift stations, well fields and traffic lights)
- EOC Crew Management Sub-process: Critical Buildings or Facilities
- EOC Crew Management Sub-process: Other Requests
- EOC Crew Management Sub-process: County Government Interface

**Systems**

CSS, OMS

**ER2: Manager, Regulatory Affairs (State Emergency Operations Center (SEOC) Coordinator)****Job Function**

The SEOC Coordinator (ER2) interacts primarily with PEF personnel in the Distribution Storm Center (DCC), Transmission Storm Center, Energy Control Center and External Relations, as well as representatives from the Florida Public Service Commission (FPSC), Department of Environmental Protection (DEP), Department of Transportation (DOT), Law Enforcement, Military Support and the Governor's Office.

**Job Description**

- Oversight of EOC Representatives (State) (ER2A) assigned to State EOC.
- Provide Regulatory updates for internal PEF Storm Calls before, during and after major storms.
- Obtain the Governor's Executive Order and distribute to PEF Logistics personnel for logistical purposes.
- Prepare DOT Waivers and communicate with DOT SEOC personnel (ESF 16) to expedite arrival of out-of-state crews prior to entry into the State of Florida.
- Prepare Aviation Waivers and obtain approvals from ESF 1 & ESF 3 (DOT & Public Works).
- Coordinate with PEF Storm Centers for the exchange of accurate information pertaining to restoration efforts before, during and after a major storm.
- Communicate with SEOC officials regarding power outage numbers by county and restoration efforts after a major storm.
- Communicate Key Messages with SEOC personnel.
- Help PEF representatives with specific requests from a state level relating to restoration efforts.
- Interact regularly with numerous positions in External Relations storm team.
- Responsible for participation in PEF System Storm Calls, ER calls.
- Responsible for PEF participation in the State Storm Drill.

**Key Interface Points**

- Governor's Office
- Florida Public Service Commission (FPSC)
- Department of Environmental Protection (DEP)
- Department of Transportation (DOT)
- Law Enforcement
- National Guard / Military Support
- Distribution Storm Center (DCC)
- Transmission Storm Center
- Energy Control Center (ECC)
- Numerous positions in External Relations storm team

## **ER2A: EOC Representative (State)**

### **Job Function**

The EOC Representative (State) (ER2A) interacts primarily with the Storm Center, Community Relations Managers (ER3), Back-up CRM (ER3A), the Operating Center Liaison, and Corporate Communications during storm restoration activities. The EOC Representative (State) (ER2A) is located at the State Emergency Operations Center. The primary responsibility of the EOC Representative (State) (ER2A) is to work with the EOC personnel to establish current priorities for restoration, communicate this information to appropriate operating center personnel, and ensure EOC priorities are worked successfully. The EOC Representative (State) (ER2A) is also responsible for establishing contact with assigned EOC and updating storm restoration priority lists prior to the beginning of the storm season.

### **Job Description**

- Establish contact with assigned EOC prior to June 1.
- Update storm restoration infrastructure priority lists throughout the year prior to June 1.
- Provide regular briefings on PE progress and deliver key messages to EOC personnel.
- Coordinate with crews and/or storm center to ensure implementation of priority infrastructure restoration process.
- Communicate with the Community Relations Manager (ER3) and Operation Center Liaison for the exchange of timely and accurate information before, during and after a major storm.

### **Key Interface Points**

- Community Relations Managers (ER3)
- Back-up CRM (ER3B)
- Operating Center Liaison
- Corporate Communications
- EOC personnel

## **Checklist of Actions**

### **Before Major Storm**

- In coordination with Manager, CIG (ER4), work with county government to update EOC priorities (e.g. designated hospitals, shelters, traffic lights, essential water treatment facilities and lift stations, etc.) and develop prioritized list for the operation centers.
- Update list of all governmental facilities in the State including responsible operating center, substation, and feeder.
- Review PE procedures with EOC staff and establish working relationship and rules.
- Work with Community Relations Managers (ER3) and DOMs to review EOC priority work flow process.
- Electronic outage data will be represented in both map and tabular format. The State will have the ability to view higher level outage data as well as each county separately, with detailed outage information based on one square kilometer grid level detail providing numbers and customers currently without power. The State will be provided this information at least four times each day during a storm event. The State will access the information on a secure web site and where necessary be provided the information manually by a PEF representative.
- Assure a network connection that will accommodate a Progress Energy computer exists at the EOC.
- Attend scheduled meetings as the storm approaches.

### **During Major Storm**

- Organize and report "911" type issues to Dispatch.
- Advise CRM and Corporate Communications of the need for press briefings or public official meetings.
- Participate in daily ER and Region storm calls and periodic Communications storm conference calls. Update on activities/potential issues in your area of responsibility.
- Provide regular briefings on PE progress and deliver key messages to EOC personnel.
- Communicate with the Community Relations Manager (ER3) and Operation Center Liaison for the exchange of timely and accurate information before, during and after a major storm.

**Key Interface Points**

- Regional VP
- Manager, Public Policy (ER1)
- Back-up CRM (ER3A)
- EOC Representative (ER3B)
- Administrative Support (ER1A)
- Operations Managers
- Operations Center Liaisons
- Corporate Communications
- Region/System Storm Center
- CSC
- Public Officials, Emergency Management personnel, other key leaders

**Checklist of Actions****Before Major Storm**

- Coordinate with Public Policy on storm initiatives, staffing plans, training and resource coordination. Participate in planning meetings.
- Update list of all public officials and local contacts prior to June 1 in the External Relations shared storm files.
- Conduct a minimum of 1 workshop per region statewide prior to storm season to include city/county staff and emergency personnel. This will assist us in having protocols in place prior to storms as well as improving relationships and communications.
- Participate in EOC and local government support training.
- Participate in daily ER and Region storm calls and periodic Corporate Communications storm conference calls. Update on activities/potential issues in your area of responsibility.
- Oversee distribution of any pre-storm communications to the community leaders in your area of responsibility.

**During Major Storm**

- Provide direction to a team of Back-up CRMs (ER3A) who are the main contact positions for communications with public officials, Emergency Management personnel and other identified key leaders in the area assigned - before, during and after the storm.
- Coordinate with Public Policy on storm staffing and resources coordination.
- Participate in daily ER and Region storm calls and periodic Communications storm conference calls. Update on activities/potential issues in your area of responsibility.
- Interact with Operations Managers, Operation Center Liaisons, Public Policy, Corporate Communications, Region/System Storm Center, CSC, Region VP, etc. for coordination and to gain knowledge of restoration priorities and efforts.

**After Major Storm**

- Ensure that the Back-up CRM's (ER3A) have finalized the communication process with local elected officials, etc., by contact with local communities to ensure that there are no outstanding issues to resolve.
- Fully support all Lessons Learned initiatives, post storm.

**Tools and Information Needed**

- Company laptop computer with CSS loaded
- Company cellular phone (in some cases a company radio will also be required)
- Standard PE storm kit
- Progress Energy shirts to be worn when out visiting public.
- Reliable vehicle appropriate to accessing storm impacted areas.

**During Major Storm**

- Provide information to all public officials, emergency management personnel and other identified key leaders in the area assigned as directed by Community Relations Manager (ER3).
  - Communicate with the Community Relations Manager (ER3) and, when necessary, the EOC Representative (ER3B), for the exchange of timely and accurate information before, during and after a major storm.
  - Coordinate, when necessary, with local Emergency Preparedness Personnel concerning evacuations and emergency shelters.
  - Represent PE at community meetings before and during the storm.
  - Participate in daily ER and Region storm calls and periodic Communications storm conference calls.
- Update on activities/potential issues in your area of responsibility.

**After Major Storm**

- Contact the local elected officials at the closing of the storm center to finalize the communication process.
- Fully support all Lessons Learned initiatives, post storm.

**Tools and Information Needed**

- Access to computer with CSS loaded
- Company cellular phone (in some cases a company radio will also be required)
- Progress Energy shirts to be worn when out visiting the public
- Reliable vehicle appropriate to accessing storm impacted areas

**Training Requirements**

- Participate in EOC and local governmental training sessions conducted by PE
- Working knowledge of PE distribution and transmission facilities and operational procedures
- Working knowledge of customer service procedures and CSS
- Experience dealing with external public (e.g. elected officials) – strong communication skills
- Able to work extended hours
- Must have the flexibility to relocate to hardest hit areas

**Engaged in the Following Sub-process:**

- EOC Crew Management Sub-process: Wire Down
- EOC Crew Management Sub-process: Road Clearing
- EOC Crew Management Sub-process: Infrastructure (lift stations, well fields and traffic lights)
- EOC Crew Management Sub-process: Critical Buildings or Facilities
- EOC Crew Management Sub-process: Other Requests
- EOC Crew Management Sub-process: County Government Interface

**After Major Storm**

- Responsible for "break-down" of PE area in EOC facility.
- Fully support all Lessons Learned initiatives, post storm.

**Tools and Information Needed**

- Company laptop computer with CSS loaded
- Company cellular phone (in some cases a company radio will also be required)
- Standard PE storm kit
- Progress Energy shirts to be worn at the EOC
- Reliable vehicle appropriate for accessing storm impacted areas
- Able to work extended hours
- Must have the flexibility to relocate to hardest hit areas

**Training Requirements**

- Working knowledge of PE distribution and transmission facilities and operational procedures
- Working knowledge of customer service procedures and CSS
- Experience dealing with external publics (e.g. elected officials) – strong communication skills
- Completion of NIMS training requirements

**Engaged in the Following Sub-process:**

- EOC Crew Management Sub-process: Wire Down
- EOC Crew Management Sub-process: Road Clearing
- EOC Crew Management Sub-process: Infrastructure (lift stations, well fields and traffic lights)
- EOC Crew Management Sub-process: Critical Buildings or Facilities
- EOC Crew Management Sub-process: Other Requests
- EOC Communication (PEF Status) Sub-process: County Government Interface

**ER4: Manager, CIG****Job Function**

The Manager, CIG, is the primary contact for the Manager, Public Policy (ER1) for storm preparation activities including, assignment of CIG representatives to EOCs and infrastructure priority lists. The Manager, CIG (ER4) has the responsibility for relationships with CIG customers during storm restoration activities.

**Job Description**

- Assure process flow for all work types is understood and in place prior to the storm.
- Provide annual training for EOC Representatives (ER3B) and CIG Support Line representatives.
- Provide general oversight for EOC Representatives (ER3B) and assure all performance expectations are met.
- Collaborate with Public Policy and Community Relations to assure EOCs are properly staffed.
- Assure all pre storm activities are completed for each EOC.

**Key Interface Points**

- Manager, Public Policy (ER1)
- Community Relations Manager (ER3)
- EOC Representatives (ER3B)

# Distribution Control Center

Document number

EMG-EDGF-00051

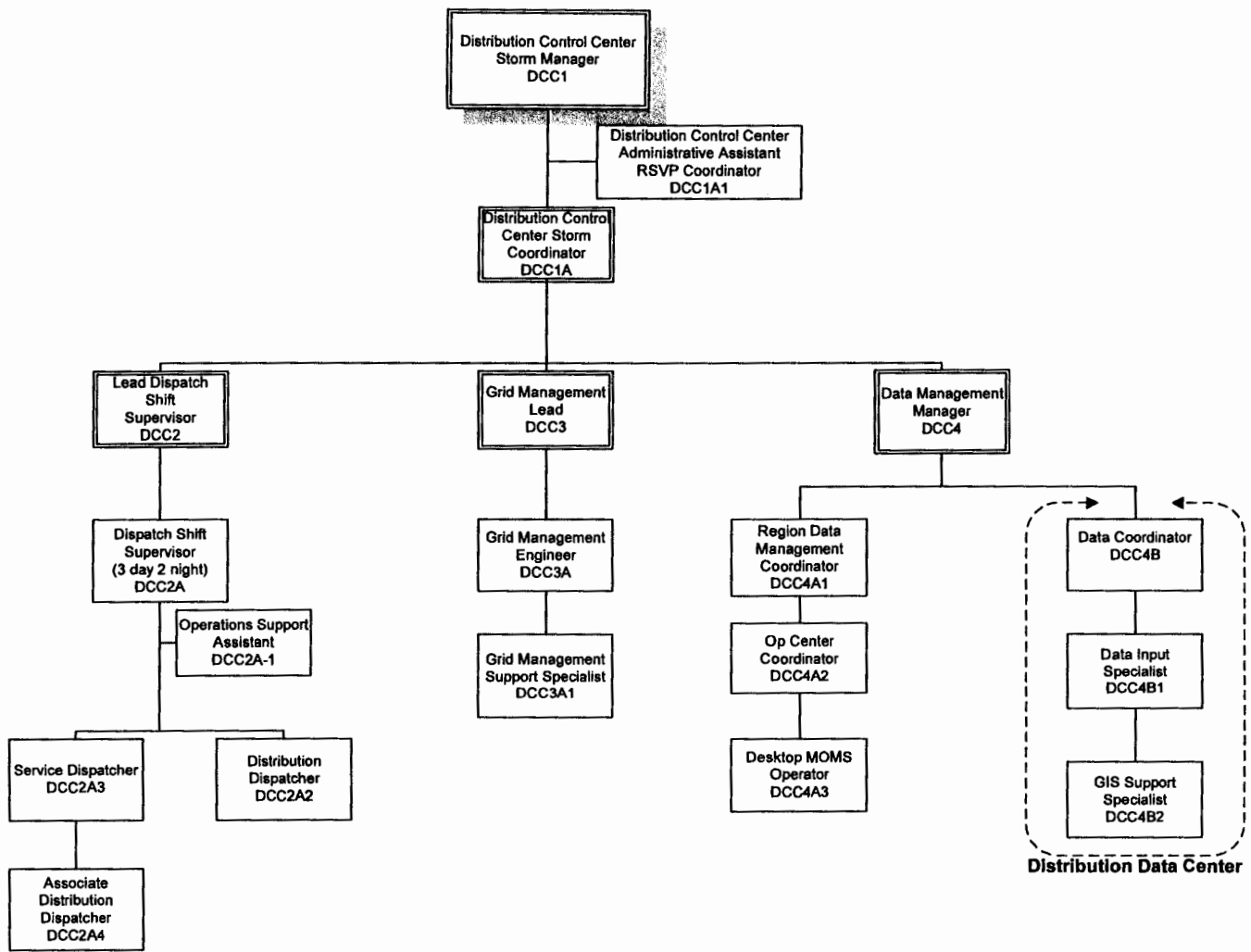
Applies to: Energy Delivery – Florida

Keywords: emergency; distribution system storm operational plan

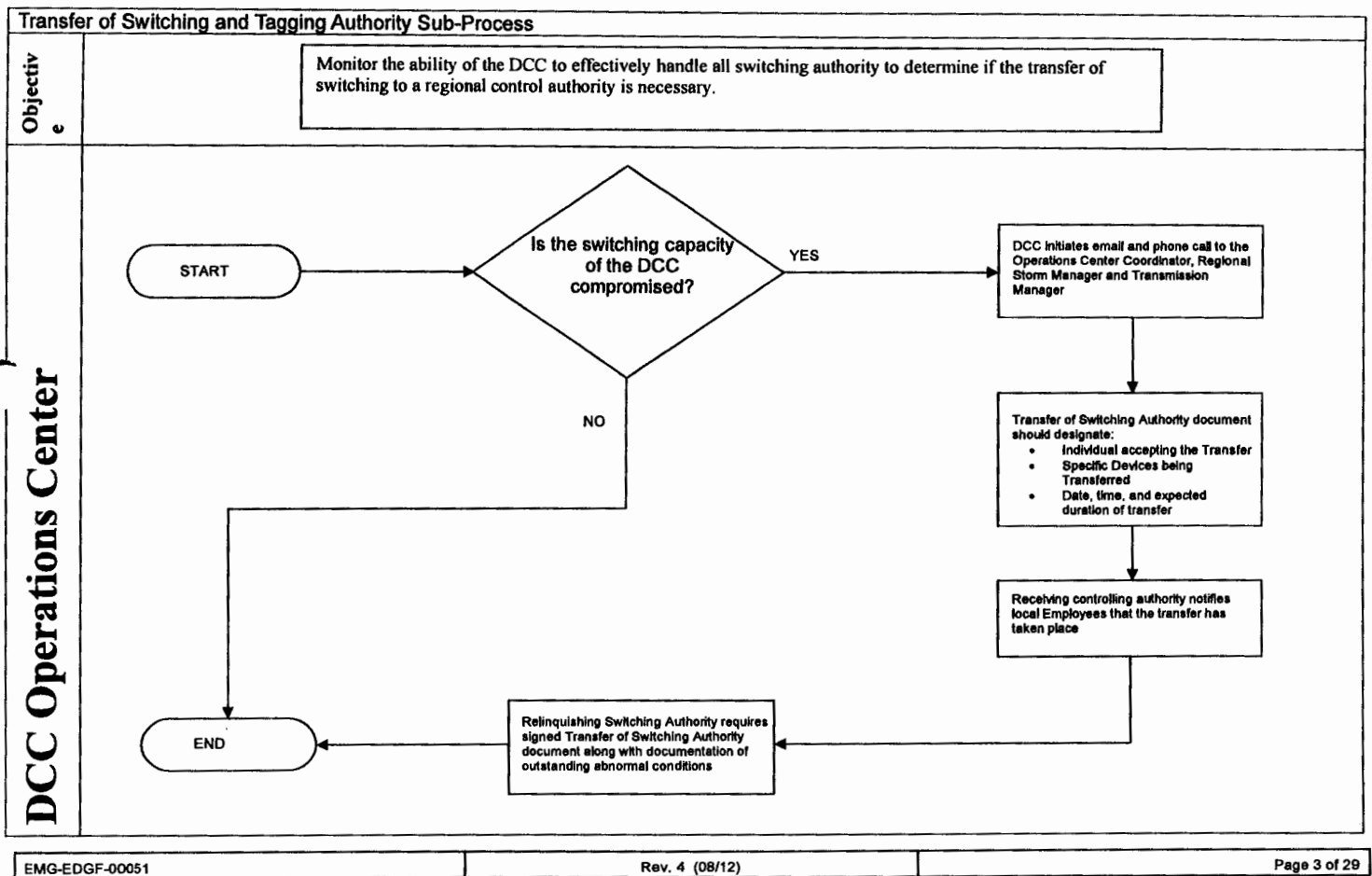
## Mission

Define, develop and implement an overall major event/hurricane response plan for managing the Distribution Control Center response consistent with corporate strategy to drive desired business results. Collaborate with other process owners to ensure integration and alignment of initiatives as set forth by the leadership team. Communicate effectively with the Executive Sponsor on department performance.

## Organization Chart

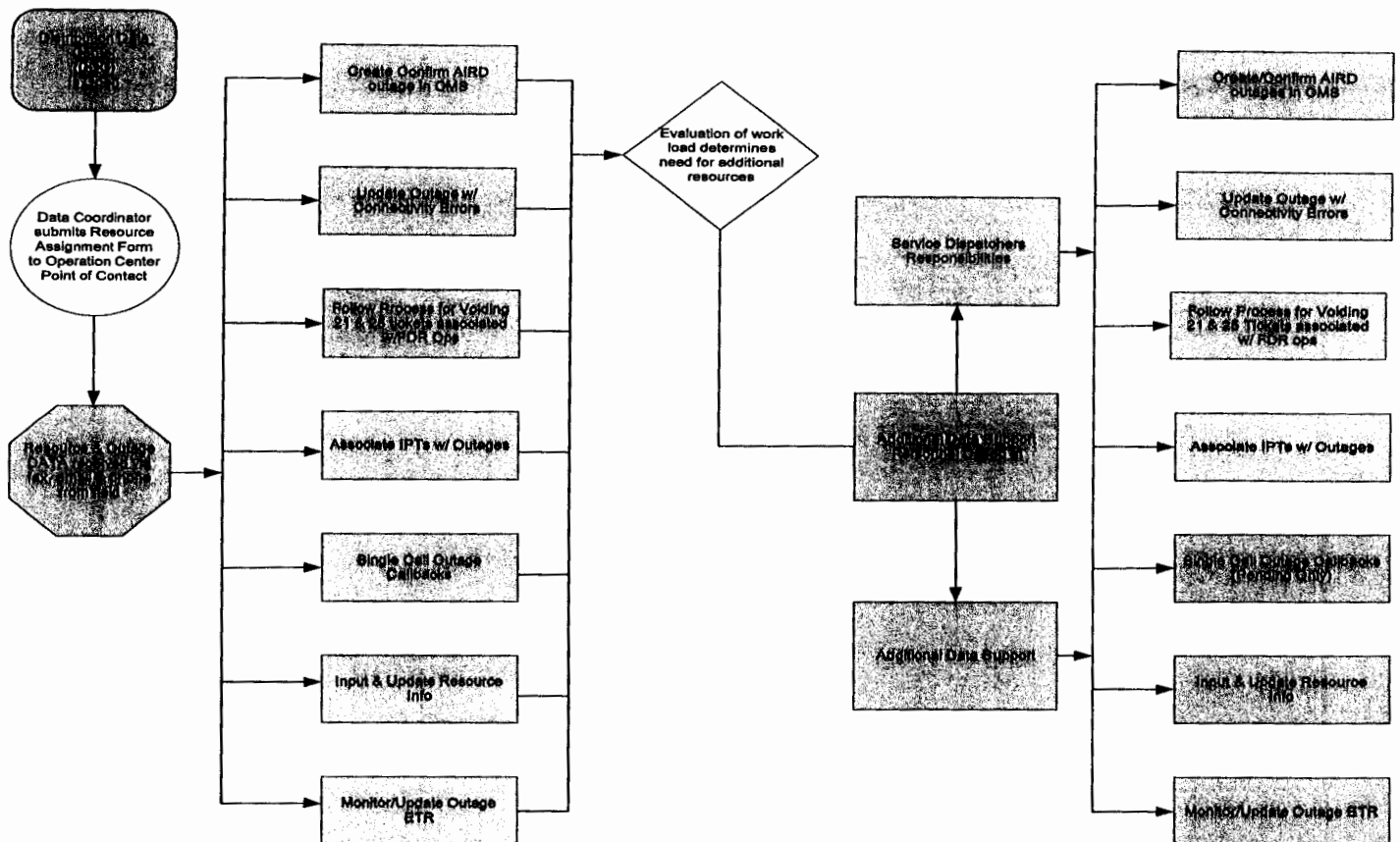


The flowchart below provides a detailed view of this sub-process:





**Distribution Data Center Document** • Field Resources with MOMs Units are responsible for updating, completing and adding comments to outages dispatched to them.\*



## **Evacuation of the DCC Facility – Transfer of Functions**

This sub-process describes the steps necessary if a storm of significant magnitude forces the total evacuation of the DCC facility.

### **Analysis of System**

- Radio- wide area radio communications would be lost with Prime site damage. Radio sites would go into site trunking if not storm damaged. The communication would only operate in a 'line of sight' mode between the communication tower and a "field" radio.
- OMS primary servers- Back-up servers at Northpoint would need to be activated.
- SCADA system damage- at this time there is no recovery for the loss of EMS equipment at the ECC facility.
- Web FG will be used for read only SCADA when decentralizing Dispatchers yet SCADA is still operational at the ECC facility.
- Phone system damage. - With the loss of the ECC site phone switches (Baker and Harris) internal phone numbers would become in operable. The Operation Center "800" numbers would need to be re-routed. The Life Threatening number "911" would need to be re-routed to Clearwater RSO (Buena Vista RSO alternate back-up).
- Mapboard - Back-up plan would be activated using standalone workstation application. The most recent copies of the Mapboard would be utilized. While this option does not allow for the sharing of "red lines" each Distribution Dispatcher could share this information with adjoining dispatchers to ensure feeder configuration is widely known. For this reason, it is imperative that the OMS application be maintained during normal every day operations.
- The recovery solution varies from rudimentary recovery of OMS and basic radio communications to complex providing approx. 90% recovery of dispatch system functionality. Factors impacting any solution would include the amount of physical damage and the availability of employees.

### **Relocation of DCC Personnel**

#### **Scenario 1 – Report to the Operating Centers/RSO/Northpoint**

**North Coastal Region-** Reporting to Ocala RSO (4 Distribution Dispatchers, 2 Service Dispatchers, 1 DCC Supervisor)

##### **Assignments**

Inverness- 1 day Distribution Dispatcher

Ocala- 1 day Distribution Dispatcher

Monticello- 1-day Distribution Dispatcher

-North Coastal Region- 1 night Distribution Dispatcher, 2 night Service Dispatchers, 1 DCC Supervisor  
(Phone coverage only)

**North Central Region-** Reporting to Northpoint (5 Distribution Dispatchers, 2 Service Dispatchers, 1 DCC Supervisor, 1 Grid Management Manager, 1 DCC RSVP Coordinator, 1 Technical Support Specialist, 1 GIS Technical Support Specialist, 1 Administrative Assistant, 1 OSA)

##### **Assignments**

Apopka- 1 day Distribution Dispatcher

Deland- 1 day Distribution Dispatcher

Jamestown- 1 day Distribution Dispatcher

Longwood- 1 day Distribution Dispatcher

North Central Region- 2 night Distribution Dispatchers, 2 Service Dispatchers, 1 DCC Supervisor

**South Central Region-** Reporting to Buena Vista RSO (6 Distribution Dispatchers, 2 Service Dispatchers, 1 DCC Supervisor)

##### **Assignments**

Winter Garden- 1 day Distribution Dispatcher

Buena Vista- 1 day Distribution Dispatcher

South East Orlando- 1 day Distribution Dispatcher

Lake Wales / Highlands - 1 day Distribution Dispatcher

South Central Region - 2 night Distribution Dispatchers, 2 Service Dispatchers, 1 DCC Supervisor

**0 to plus 12hrs. – After Storm**

- DCC Supervisor in South Coastal to contact Grid Management Lead for update on ECC facility assessment.
- Return team for assessment of DCC
  - Site security
  - Identify damage
- Identify locations for local dispatching
  - Set-up
  - work

**Estimated Time of Restoration Management**

This sub-process gathers the information required to develop and maintain an accurate distribution system ETR.

The following personnel are engaged in ETR Management:

- Damage Assessor (DA2A1)
- Desktop MOMS Operator (OPS2D)
- Distribution Dispatcher (DCC2A2)
- Operations Center Damage Assessment Coordinator (DA2A)
- Op Center Coordinator (DCC4A2)
- Region Data Management Coordinator (DCC4A1)
- Regional Damage Assessment Coordinator (DA2)
- System Damage Assessment Coordinator (DA1)
- (DCC4A)
- Tactical Management Coordinator (OPS2)

## **Job Descriptions**

### **DCC1 Distribution Control Center Storm Manager**

#### **Job Function**

This position will typically be filled by the Director of the Distribution Control Center. This position is the lead for the Distribution Control Center storm Organization.

#### **Job Description**

This position manages the overall Distribution Control Center storm plan and engages the Distribution Control Center storm organization to meet the daily system goals. This position maintains a strategic approach to the storm restoration effort.

#### **Key Interface Points**

- Executive Sponsor (CMS1)
- Regional Storm Manager (REG2)
- Distribution System Storm Coordinator (DSSC1)
- Distribution Storm Coordinator (DCC1A)
- Corporate Communications Manager (CC1)

#### **Checklist of Actions**

DCC Storm Prep Checklist changes (2).docx

#### **Tools and Information Needed**

- Distribution Control Center major storm plan.
- Distribution Control Center staffing plans.
- Contact list for entire Operations Center storm organization chart
- County EOC issues spreadsheet
- Priority customer/feeder list

**DCC1B Distribution Control Center Administrative Assistant RSVP Coordinator****Job Function**

This position will fulfill the role of RSVP Coordinator and provide administrative support to the Distribution Control Center.

**Job Description**

Act as the first point of contact for the Distribution Control Center employees regarding RSVP and maintain the RSVP to ensure the document contains the most accurate information.

Provide administrative assistance to the Distribution Control Center. Maintain storm items such as charge codes, storm cards and supplies. Collaborate with supporting areas (Regional Storm Centers, Dispatch, Grid Management & Data Management) to ensure the Distribution Control Center has the most accurate information at all times, including emergency contact information. Coordinate with the ECC and Distribution Control Center Operations Support Assistant to ensure the facilities are maintained in a clean and safe manner at all times.

Act as liaison between the Distribution Control Center employees, Staging and Logistics and fleet department to ensure all travel and lodging needs of the Distribution Control Center are met and communicated.

Ensure all Distribution Control Center employees and supporting personnel NERC CIP status are current and up-to-date. Coordinate any training that needs to be completed.

This position is directly accountable to the Distribution Control Center Storm Manager and the Distribution Control Center Storm Coordinator.

**Key Interface Points**

- Distribution Control Center Storm Manager (DCC1)
- Distribution Control Center Storm Coordinator (DCC1A)
- Lead Dispatch Shift Supervisor (DCC2)
- Grid Management Lead (DCC3)
- Data Management Manager (DCC4)
- Operations Support Assistant (DCC2A1)
- Regional Storm Coordinator (REG2)

**Checklist of Actions**

DCC Storm Prep Checklist changes (2).docx

**Tools and Information Needed**

- Distribution Control Center major storm plan.
- Distribution Control Center staffing plans.
- RSVP Tool
- Staging and Logistics process
- Contact list for key interface positions
- Employee NERC CIP status

**DCC2A: Dispatch Shift Supervisor****Job Function**

In collaboration with the Lead Shift Supervisor, this position will coordinate the Distribution Control Center execution of the DCC Storm plan.

**Job Description**

Manage the Dispatcher group to ensure OMS modeling and switching and tagging procedures are fully supported. Fill shifts as necessary for storm support. Ensure all dispatchers have a full understanding of the AIRD and D1 processes and the role they play in executing this process. Maintain a clear understanding of the projected storm path including wind speed, rainfall, storm surge and estimated time of landfall. Make sure this information is communicated to all Distribution Control Center employees.

Communicate any building logistics and possible changes to the Distribution Control Center employees.

Assist the Lead Dispatch Shift Supervisor as needed. Participate in the Region storm calls for assigned region(s). Act as a liaison between the Region Storm rooms and dispatchers

This position is directly accountable to the Lead Dispatch Shift Supervisor and the Distribution Control Center Storm Coordinator.

**Key Interface Points**

- Lead Dispatch Shift Supervisor (DCC2)
- Grid Management Lead (DCC3)
- Distribution Dispatchers (DCC2A2)
- Service Dispatcher (DCC2A3)
- Associate Distribution Dispatcher (DCC2A4)
- Data Management Manager (DCC4)
- Operations Support Assistant (DCC2A1)

**Checklist of Actions**

DCC Storm Prep Checklist changes (2).docx

**Tools and Information Needed**

- Distribution Control Center major storm plan.
- Distribution Control Center staffing plans.
- State of the Grid
- Intranet
- Internet
- Mapboard
- Microsoft Applications
- Load Between Switches
- FMS
- Switching Orders Application (PEF)
- SCADA
- VMS
- OMS
- AIRD Process
- D1's Process

## **DCC2A2: Distribution Dispatcher**

### **Job Function**

This position requires a complete understanding of the Distribution Control Center responsibilities in support of major storm restoration efforts

### **Job Description**

Initiate all switching and tagging operations necessary to restore and maintain the distribution system in accordance with the Progress Energy Switching and Tagging manual. Model the distribution system in OMS and Mapboard to reflect the current condition of the distribution grid. Dispatch outages in OMS to the correct field resource. Monitor SCADA and respond to necessary alarms and breaker operations.

In addition, this position will monitor radio communications and will support emergency call protocols, when needed

This position reports directly to the Dispatch Shift Supervisor and Lead Dispatch Shift Supervisor

### **Key Interface Points**

- Dispatch Shift Supervisors (DCC2A)
- Service Dispatcher (DCC2A3)
- Associate Distribution Dispatcher (DCC2A4)
- Operations Support Assistant (DCC2A1)
- Data Input Specialist (DCC4B1)
- GIS Support Specialist (DCC4B2)

### **Checklist of Actions**

DCC Storm Prep Checklist changes (2).docx

### **Tools and Information Needed**

- Distribution Control Center major storm plan.
- Distribution Control Center staffing plans.
- AIRD process
- D1 process
- OMS
- CSS
- Advantex
- Baker Phone system
- Motorola Radio
- ARCOS
- Intranet
- Internet



**DCC2A4: Associate Distribution Dispatcher****Job Function**

Monitor, update and dispatch OMS and Mobil Link work when applicable. Provide real-time modeling of the system in accordance with the AIRD standards.

**Job Description**

Monitor and respond to 911 calls that come in via Baker phone system. Follow the A.I.R.D process by modeling OMS to reflect the current condition of the distribution system. Process the outage log's received in the Distribution Data Center by creating confirmed outages in OMS by utilizing the "forced outage creation" process. Monitor and update ETR. Associate Immediate Problem Tickets with outages. Follow process for voiding 21 & 25 tickets associated with feeder operations. Update resource information in OMS. Update outages with connectivity errors. Assist with creating D1's when applicable. Perform single outage callbacks when necessary.

This position is directly accountable to the Data Coordinator and Lead Dispatch Shift Supervisor.

**Key Interface Points**

- Dispatch Shift Supervisors (DCC2A)
- Distribution Dispatchers (DCC2A2)
- Service Dispatchers (DCC2A3)
- Operations Support Assistant (DCC2A1)
- Data Input Specialist (DCC4B1)
- GIS Support Specialist (DCC4B2)

**Checklist of Actions**

DCC Storm Prep Checklist changes (2).docx

**Tools and Information Needed**

- Distribution Control Center major storm plan.
- Distribution Control Center staffing plans.
- AIRD process
- D1 process
- OMS
- CSS
- Advantex
- Baker Phone system
- Motorola Radio
- ARCOS
- Intranet
- Internet

**DCC3A: Grid Management Engineer****Job Function**

Assist in developing an overall strategy for maintaining the integrity of the distribution system.

**Job Description**

Provide relevant system performance metric's such as condition of critical feeders, system load, abnormal configuration and critical switching orders to Grid Management Lead. Assist Grid Management Lead in monitoring the distribution system based on transmission constraints and distribution abnormalities.

This position is directly accountable to the Grid Management Lead.

**Key Interface Points**

- Distribution Control Center Storm Coordinator (DCC1A)
- Lead Dispatch Shift Supervisor (DCC2)
- Dispatch Shift Supervisor (DCC2A)
- Grid Management Lead (DCC3)
- Distribution Control Center Administrative Assistant RSVP Coordinator (DCC1B)
- Grid Management Support Specialist (DCC3A1)

**Checklist of Actions****DCC Storm Prep Checklist changes (2).docx****Tools and Information Needed**

- Distribution Control Center major storm plan.
- Distribution Control Center staffing plans.
- State of the Grid
- Intranet
- Internet
- Mapboard
- Microsoft Applications
- Load Between Switches
- FMS
- Switching Orders Application (PEF)
- SCADA
- VMS
- OMS

## **DCC4: Data Management Manager**

### **Job Function**

Define, develop and implement an overall plan for maintain the integrity of all outage and restoration data related to a major event/hurricane consistent with corporate strategy.

**Job Description** Review and approve all outage and restoration data prior to publication. Provide relevant performance metric information via the system storm calls to other Process Owners. Collaborate with Process Owners (IT, Performance Support, Regional Storm Room, Op centers and RSM) to ensure all systems are operational. Staff the Data Management organization effectively to ensure the organization's success. Verify all refresher training on OMS and Desktop MOMS has been completed for all Data Center and MOMS operators. Start to schedule conference calls (2 per day) with leads (DCC, System & Regional DM Coordinators, and OMS Help Desk). Coordinate with Performance Support to reconcile the number of customers by county for the Outage Mapping Application. Initiate with Performance Support a snap shot of current state of OMS and Map Board application and ensure OMS snap shot is inserted at beginning of storm. Ensure GIS support Specialist has updated Mapboard maps to PDF

Provide governance oversight to the Data Management Organization to achieve corporate objectives. Develop and implement effective change management plans related to storm response in order to educate and arm champions of the process. Identify performance improvement opportunities and lead post storm lessons learned meetings with DCC organization to share and participate during system level lessons learned calls. Develop a plan to drive the resolution of identified lessons learned.

This position is directly accountable to the Distribution Control Center Storm Coordinator.

### **Key Interface Points**

- Distribution Control Center Storm Coordinator (DCC1A)
- Grid Management Lead (DCC3)
- Lead Dispatch Shift Supervisor (DCC2)
- Data Coordinator (DCC4B)
- Data Input Specialist (DCC4B1)
- Region Data Management Coordinator (DCC4A1)
- Op Center Data Coordinators (DCC4A2)
- GIS Support Specialist (DCC4B2)
- Region Storm Manager (REG1)

### **Checklist of Actions**

#### **DCC Storm Prep Checklist changes (2).docx**

### **Tools and Information Needed**

- Distribution Control Center major storm plan.
- Distribution Control Center staffing plans.
- State of the Grid
- Internet
- Intranet
- Microsoft Applications
- MOMS
- OMS Status
  - ETR Assignment Report
  - ETR/ITR Report
  - County Summary Report
  - System /Region/Op Center Summary
  - Restoration Trends
- Email
  - Email Distribution Lists
    - Storm Center FI – Distribution Data Center
    - Storm Center FL – Distribution Data Management

**DCC4A2: Operations Center Coordinator****Job Function**

This position is responsible for maintain the integrity of all outage and restoration data for the Operations Center.

**Job Description**

This individual is responsible for updating outage data within the MOMS application as necessary during the restoration process. This may include but not be limited to completing outages, adding outage comments, ETR management.

This position is directly accountable to the Region Data Management Coordinator and Data Management Manager.

**Key Interface Points**

- Data Management Manager (DCC4)
- Tactical Management Coordinator (OPS2)
- Regional Damage Assessment Coordinator (DA2)
- Regional Data Management Coordinator (DCC4A1)

**Checklist of Actions**

DCC Storm Prep Checklist changes (2).docx

**Tools and Information Needed**

- Desktop MOMS software
- Intranet
- Internet
- Microsoft Applications
- Email
  - Email Distribution Lists
    - Storm Center FI – Distribution Data Center
    - Storm Center FL – Distribution Data Management

## **DCC4B: Data Coordinator**

### **Job Function**

Maintain the integrity of all outage and restoration data for the Data Management Center.

### **Job Description**

Compile, Analysis and report accurate outage and restoration information during a major event/hurricane to the Data Management Manager. Collaborate with Process Owners to ensure accurate modeling of the system. Staff the Data Center effectively to ensure the organizations success.

Manage the Distribution Control Center Data Center group to ensure accurate outage and restoration data. Ensure all Data Center employees have a full understanding of the AIRD and D1 process and the role they play in executing this process. Maintain a clear understanding of the projected storm path including wind speed, rainfall, storm surge and estimated time of landfall. Make sure this information is communicated to all Distribution Control Center Data Center employees. Communicate any building logistics and possible changes to the Distribution Control Center Data Center employees

This position is directly accountable to the Data Management Manager.

### **Key Interface Points**

- Data Management Manager (DCC4)
- Operations Center Coordinator (DCC4A2)
- Grid Management Lead (DCC3)
- Lead Dispatch Shift Supervisor (DCC2)
- Region Storm Manager (REG1)
- Data Input Specialist (DCC4B1)
- GIS Support Specialist (DCC4B2)

### **Checklist of Actions**

DCC Storm Prep Checklist changes (2).docx

### **Tools and Information Needed**

- Distribution Control Center major storm plan.
- Distribution Control Center staffing plans.
- OMS
- Intranet
- Internet
- Microsoft Applications
- AIRD Process
- D1's Process
- OMS Status
  - ETR Assignment Repot
  - ETR/ITR Report
  - County Summary Report
  - System /Region/Op Center Summary
  - Restoration Trends
- Email
  - Email Distribution Lists
    - Storm Center FI – Distribution Data Center
    - Storm Center FL – Distribution Data Management

**DCC4B2: GIS Support Specialist****Job Function**

Assist in maintaining the integrity of the Distribution Control Centers GIS and Mapboard systems.

**Job Description**

Maintain and update the distribution system mapping before during and after a major event/hurricane. Identify and correct connectivity errors in GIS and Mapboard. Assist in crating maps for other organizations.

This position is directly accountable to the Data Coordinator and Data Management Manager.

**Key Interface Points**

- Data Management Manager (DCC4)
- Data Coordinator (DCC4B)
- Data Input Specialist (DCC4B1)
- Distribution Dispatcher (DCC2A2)
- Service Dispatchers (DCC2A3)
- Associate Distribution Dispatchers (DCC2A4)

**Checklist of Actions**

DCC Storm Prep Checklist changes (2).docx

**Tools and Information Needed**

- Distribution Control Center major storm plan.
- Distribution Control Center staffing plans.
- AIRD process
- D1 process
- OMS
- CSS
- Intranet
- Internet
- Mapboard
- Email
  - Email Distribution Lists
    - Storm Center FI – Distribution Data Center
    - Storm Center FL – Distribution Data Management

# Resource Management

Document number

EMG-EDGF-00052

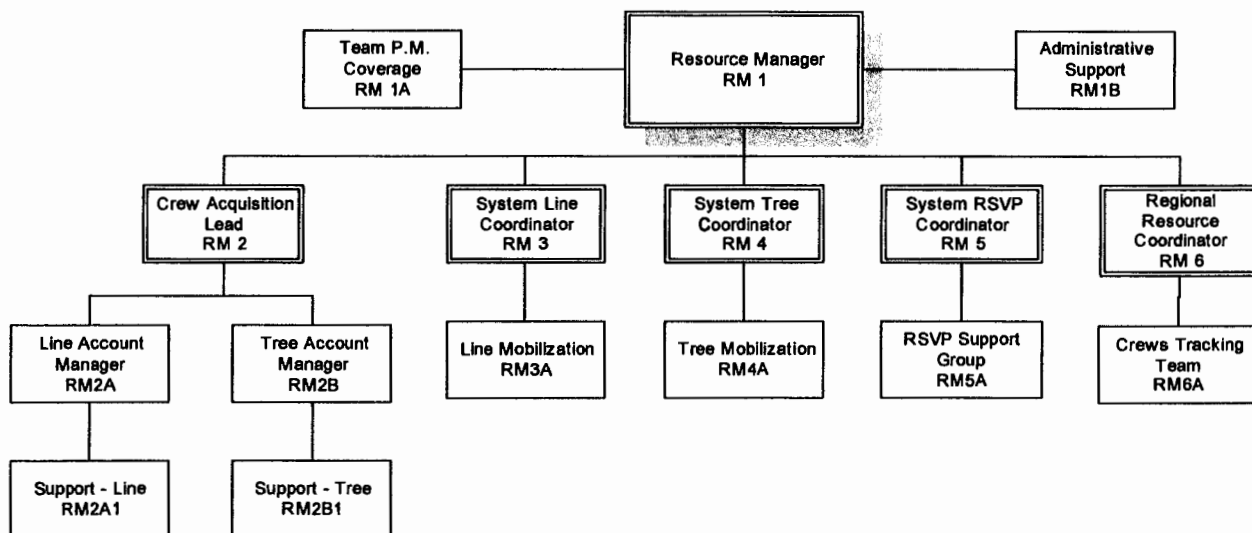
Applies to: Energy Delivery – Florida

Keywords: emergency; distribution system storm operational plan

## Mission

Resource Management acquires, mobilizes, assigns, tracks, and demobilizes off-system line and tree distribution resources, both before and during major storm events, in the most cost-effective and efficient manner possible. Resource Management also receives and fulfills additional support resources required by Progress Energy's regional storm organizations.

## Organization Chart



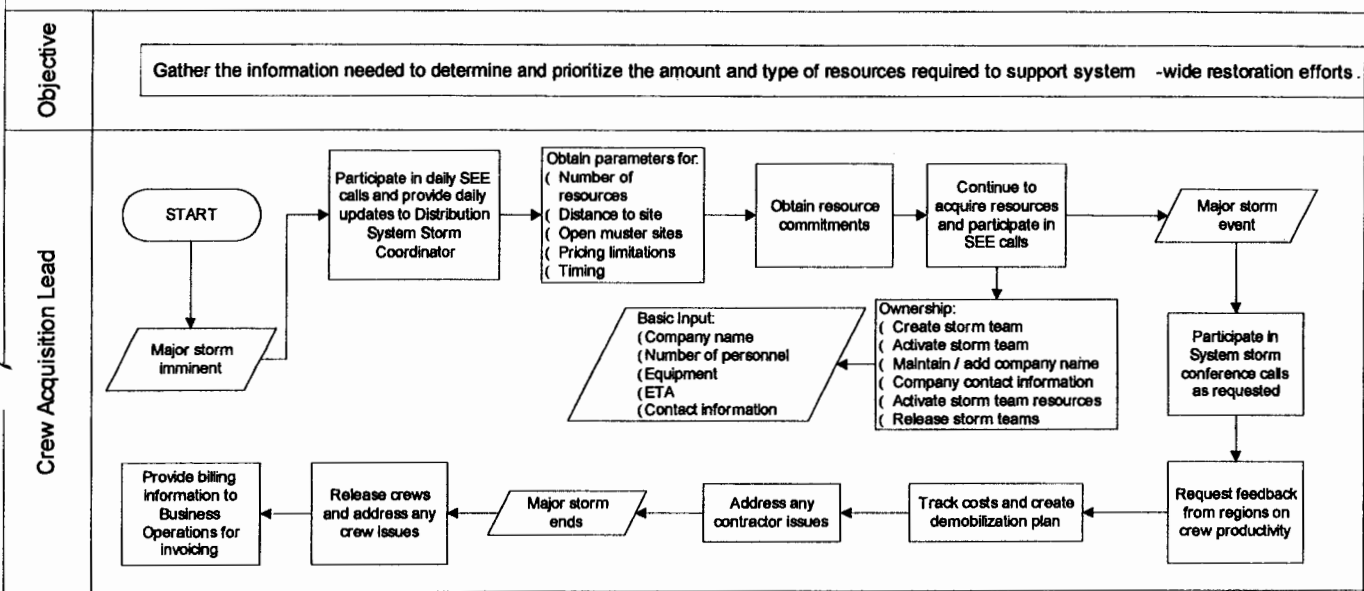
## Sub-processes

The Resource Management functional process includes the following sub-processes:

- Crew Acquisition and Mobilization
- Line/Tree Acquisition
- Support Personnel Acquisition
- Contractor Demobilization Plan
- System RSVP Process Document
- RSVP 48 HR & 24 HR Procedure Flow
- RSVP 96 HR & 72 HR Procedure Flow
- RSVP Process – Non Line Resources
- RSVP Resource Request Template
- Resource Link Process Flow



Crew Acquisition and Mobilization Sub -process



## **Line/Tree Acquisition**

The Line/Tree Acquisition sub-process determines the movement of line and tree crews during restoration efforts.

The following personnel are engaged in Line/Tree Acquisition:

- Resource Manager (RM1)
- System Line Coordinator (RM3)
- System Tree Coordinator (RM4)
- Team P.M. Coverage (RM1A)

The timeline below provides a detailed view of this sub-process:

## **Tree Ground Acquisition**

The Tree Ground Acquisition sub-process determines the needs for grounds to support contract tree personnel assisting in restoration efforts.

The following personnel are engaged in Tree Ground Acquisition:

- Crew Acquisition Lead (RM2)
- Tree Mobilization Lead (RM4A)
- System Stores
- Tree Account Manager (RM2B)

The flowchart below provides a detailed view of this sub-process:

## **Contractor Demobilization Plan**

The Contractor Demobilization Plan sub-process outlines the systematic release of contractor (line and tree) as restoration efforts necessitate.

The following personnel are engaged in Tree Ground Acquisition:

- Resource Manager (RM1)
- Crew Acquisition Lead (RM2)
- Tree Mobilization (RM4A)
- Line Mobilization (RM3A)
- Tree Account Manager (RM2B)
- Line Account Manager (RM3A)
- Region Resource Coordinator (RM6)
- Zone Coordinator (OPS2C-2C1)
- RM Coordinator (OPS3)

The documents for current storm can be accessed by clicking [here](#) (restricted access).

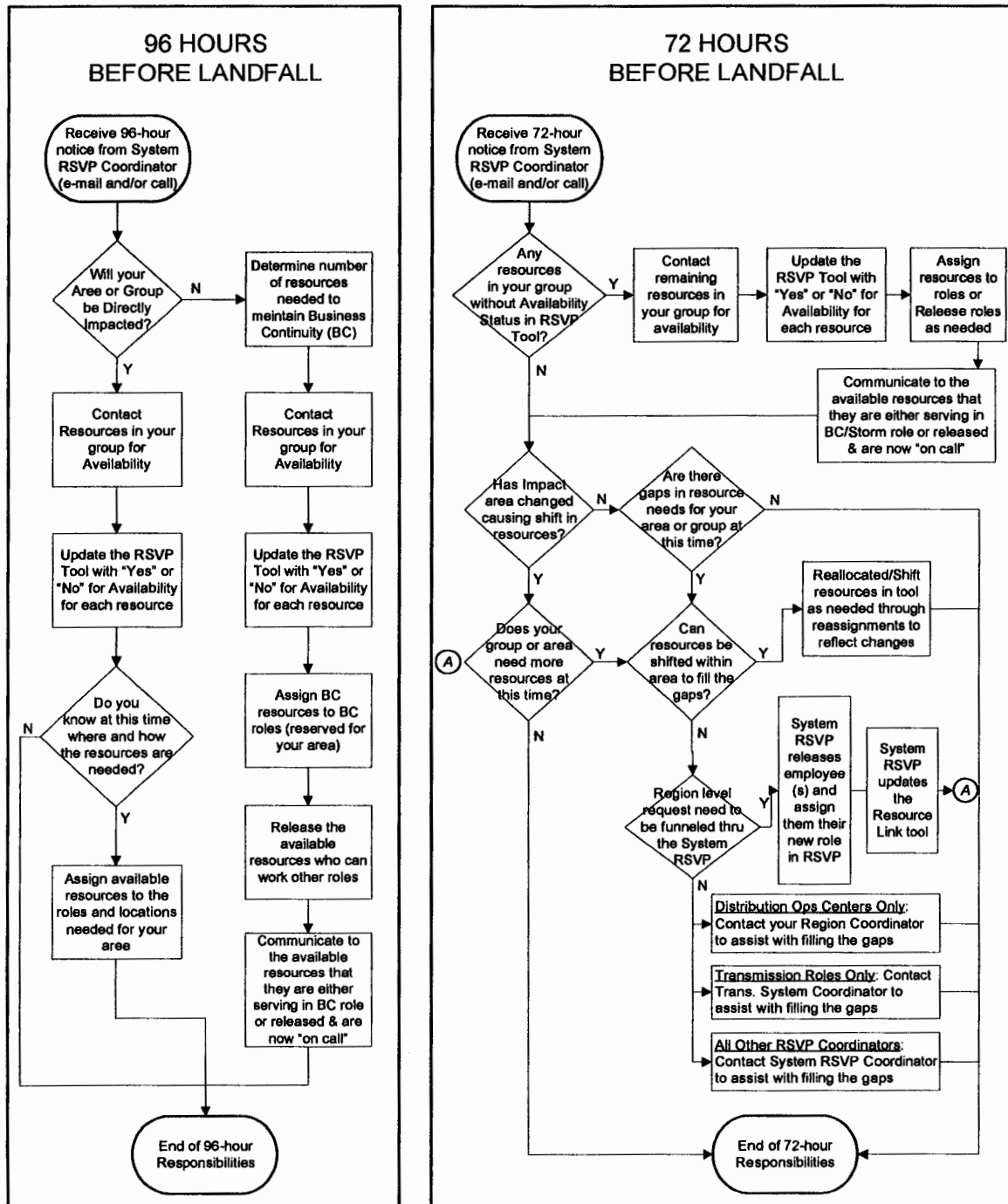
The flowchart below provides a detailed view of this sub-process:

<b>Storm Contractor Field Ranking Report</b>			
Date _____	Feeder Coordinator _____		
Contractor Name _____	Crew ID _____		
Crew Type (Line or Tree) _____			
Op Center _____	Region _____		
	Yes	No	
Can the crew climb?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the crew properly equipped?	<input type="checkbox"/>	<input type="checkbox"/>	
	Exceeds	Meets	Needs Improvement
Safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Productivity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>			
Anticipates activities for next task Requests materials to keep production moving Sets production goals for crews Far exceeds OSHA standards Does not sit idle Always uses PPE Communicates effectively Gives and receives feedback Is proactive Managing materials well with no waste Delights customers and is proactive	Works well on task at hand Engages internal contacts when needed Completes most work assigned Only sits idle when waiting on work Uses safe work practices Exceeds OSHA standards Does not misuse material Provides feedback when asked Able to resolve customer issues.	Waits for work between tasks Only communicates when asked Does not complete work assigned Meets OSHA standards Materials/housekeeping needs improvement Handles only some customer issues	
June 25, 2009			

Complete and submit daily on each observed crew to the Operation Center Crew Tracker

**96 HR & 72 HR Procedure for PEF RSVP  
Updated 5/26/10**

**96-HOUR and 72-HOUR PROCEDURE FOR PEF RSVP  
COORDINATORS**



## RSVP RESOURCE REQUEST TEMPLATE

REQUEST DATE - \_\_\_\_\_

REGION - \_\_\_\_\_

LOCATION - \_\_\_\_\_

RSVP COORDINATOR - \_\_\_\_\_

LOCATION CONTACT PERSON - \_\_\_\_\_

PHONE NUMBER OF CONTACT - \_\_\_\_\_

DATE RESOURCES ARE NEEDED - \_\_\_\_\_

LOCATION RESOURCES ARE TO SHOW UP - \_\_\_\_\_

WILL HOTEL ACCOMMODATIONS BE REQUIRED - \_\_\_\_\_

TYPES OF RESOURCES (ENTER NUMBER NEXT TO RESOURCES TYPE)

**GUIDES** – (Direct crews around operations area. Drivers license required) \_\_\_\_\_

**SCOUTS** – (Drive feeders and deliver materials to crews. Drivers license required) \_\_\_\_\_

**LOCAL OPS CENTER SUPPORT** – (This position will provide basic support functions within an operations center. The RSVP resources should be able to operate a motor vehicle, have basic computer and telephone skills and be able to take directions to handle ordinary operations center task) \_\_\_\_\_

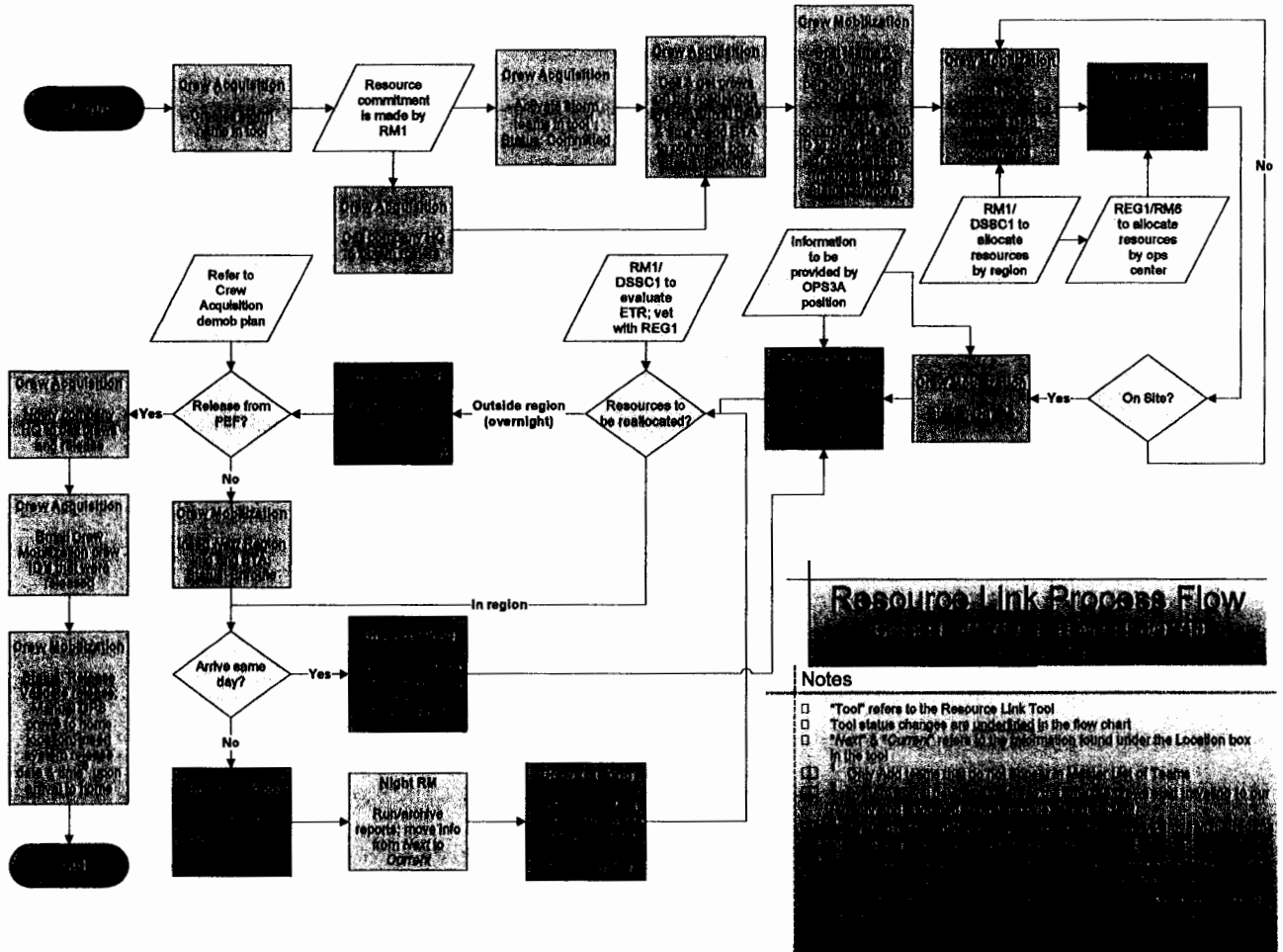
**S&L** – (Personnel with skills to park vehicles, drive a vehicle to make deliveries, serve meals, and complete basic task) \_\_\_\_\_

Submit forms to - **Storm Florida RSVP System Support** in outlook

**Dist Op Ctr RSVP Coordinators** – submit to region coordinator for mgmt review & approval.  
Region Coordinator will then submit to RSVP STORM Mail Box.



Resource Link Process Flow  
Updated 6/01/10



### Resource Link Process Flow

Version 5.0 (09/11)

**Notes**

- "Tool" refers to the Resource Link Tool
- Tool status changes are indicated in the flow chart
- "Net" & "Current" refers to the information found under the Location box in the tool
- Only Additions to the Resource Link of Teams

## Checklist of Actions

### Before Major Storm

- Ensure annual review and update to the RM storm plan is completed prior to annual system storm drill.
- Verify RM storm organization is fully staffed.
- Ensure RM personnel are fully trained to their storm roles.
- Ensure updated RM contact information is posted on the Storm Center web site.
- Ensure key interfaces have been identified with their contact information.
- Ensure assigned storm room is functional.
- Participate on RSM and System storm preparation conference calls
- Schedule and facilitate RM storm preparation conference calls.
- Ensure RM participation on SEE and other mutual assistance resource availability conference calls.
- Identify pre-storm resources to meet System Storm Coordinator requirements based upon predictive model.
- Acquire pre-storm resources to meet system requirements.
- Activate Storm Tool and load all pre-storm resources.
- Facilitate the development of pre-storm resource allocation plan.

### During Major Storm

- Utilize storm mailboxes for all email communication.
- Participate in RSM and System storm restoration conference calls
- Ensure RM participation on SEE and mutual assistance conference calls
- Facilitate RM storm conference calls.
- Identify post storm resources to meet System Storm Coordinator requirements based upon predictive model.
- Acquire post storm resources to meet system requirements.
- Update Storm Tool with post storm resources and internal resource mobilization.
- Facilitate the development of a resource re-allocation plan, as needed.
- Facilitate the development of a resource draw down plan.
- Participate in the development of a post storm plan to complete temporary repairs.

### After Major Storm

- Ensure contract line and tree resources are identified and retained to support any post storm "clean up" plans.
- Ensure de-activation of RM storm room is completed.
- Sponsor a post storm RM lessons learned and forward to the Distribution System Storm Coordinator.

## RM1A: Team P.M. Coverage

### RM1A: Team PM Coverage Resource Manager

#### Job Description

The PM Resource Manager must be able to cover the duties of the Resource Manager (RM1) position as well as individual responsibilities unique to this position.

#### Storm Governance Responsibilities

- Support the Resource Manager (RM1) as needed with the storm preparedness and restoration activities of the Resource Management storm organization.
- Direct and manage the Resource Management Organization transition from next day to current day within the Resource Tracking Tool.
- Ensure the daily archival of Resource Tracking Tool historical data of various reports for utilization for contract payments and storm accounting support.
- Coordinate storm preparedness and restoration activities with PEC Resource Manager and SEE Mutual Assistance Peers.
- Coordinate storm preparedness activities with Line and Tree Contractors to establish resource availability.
- Support the Distribution System Storm Coordinator by identifying, acquiring and mobilizing pre-storm landfall resources needs based on predictive model.
- Support the Distribution System Storm Coordinator by identifying, acquiring and mobilizing post-storm landfall resources needs based on predictive model and damage assessment.

**During Major Storm**

- Utilize storm mailboxes for all email communication.
- Ensure Resource Manager (RM1) has updated information for RSM and System storm restoration AM conference calls
- Schedule and Facilitate daily meeting with Resource Management Organization Leadership (RM1, RM2, RM3, RM4, RM5 and RM6) prior to start of day shift to provide status updates of night activities.
- Ensure RM participation on SEE and mutual assistance conference calls
- Facilitate RM storm conference calls.
- Identify post storm resources to meet System Storm Coordinator requirements based upon predictive model.
- Acquire post storm resources to meet system requirements.
- Update Storm Tool with post storm resources and internal resource mobilization.
- Facilitate the development of a resource re-allocation plan, as needed.
- Facilitate the development of a resource draw down plan.
- Participate in the development of a post storm plan to complete temporary repairs.

**After Major Storm**

- Ensure contract line and tree resources are identified and retained to support any post storm "clean up" plans.
- Ensure de-activation of RM storm room is completed.
- Participate in a post storm RM lessons learned and forward to the Distribution System Storm Coordinator.

**RM1B: Administrative Support**

**RM1B : RM Administrative Assistant**

**Job Description**

The Resource Manager Administrative Assistant supports the Resource Manager (RM1), PM Resource Manager (RM1A) and the RM storm organization and functions during major restoration efforts.

**Storm Governance Responsibilities**

- Supports the Resource Manager (RM1) and PM Resource Manager (RM1A) as needed with the storm preparedness and restoration activities of the Resource Management storm organization.
- Assist in the development and communication of the resource deployment, re-allocation and release plans.
- Assist in the development of the release plan that identifies value added contract line and/or tree resources for retention during draw down of resources

**Key Interface Points**

Resource Manager (RM1)

Team PM Coverage Resource Manager (RM1A)

Crew Acquisition Lead (RM2)

System Line Coordinator (RM3)

System Tree Coordinator (RM4)

System RSVP Coordinator (RM5)

Regional Resource Coordinator (RM6)

Distribution System Storm Coordinator (DSSC1)

System Staging & Logistics Coordinator (SL1)

**RM2: Crew Acquisition Lead**

**Job Description**

This position will:

- Collaborate with system storm manager, or designee, to determine
  - Resource requirements
  - Timing for mobilization
  - Financial constraints
  - Pricing limitations
  - Location to muster resources (in state, out of state)
  - Radius to acquire resources
- Communicate the result of above to the acquisition team to begin process
- Ensure resources are acquired and appropriate terms and conditions are negotiated
- SEE and EEI company representative
  - Team lead, or designee, participates and collaborates with national and regional mutual assistance associations
- Responsible for reporting on goal achievement as defined by the system
  - Sample goals:
    - Number of incremental line resources acquired
    - Number of incremental tree resources acquired
    - Number of line resources demobilized
    - Number of tree resources demobilized
- Develops crew demobilization Plan
  - Determine means to populate information regarding crew price and designate team member to update file
  - Solicit feedback from the regions on crew performance via the line and tree crew lead
  - Provide timeline to make crew decisions on who to release which will be discussed on the daily resource call
  - Acquisition team notifies home office first of release and the region will notify the local crews

**Key Interface Points**

- Line Account Manager (RM2A)
- SEE
- EEI
- Region Storm Managers (REG1)
- Crew acquisition account team members

**RM2A: Line Account Manager**

**Job Description**

- Primary account manager - Create and activate storm in storm tool
- Acquire and secure resources from utilities, private companies, muni's and coops that meets the criteria established by the Acquisition team lead. Negotiate terms and conditions as prescribed by team lead.
  - How many needed?
  - What is the timing?
  - When to make financial commitment.
  - Pricing limitations
  - Location to muster resources (in state, out of state)
  - Radius to acquire resources
- Primary account manager - As requested by team lead, serve as the SEE and EEI company representative
  - Participate and collaborate with national and regional mutual assistance associations
- Primary account manager - Resource outlook and forecast
  - Provide high level information on resources to be made available (example: Southern Company to release 200 people in 2 days to Progress Energy). Provide to Resource Management Director.

**RM2B: Tree Account Manager**

**Job Description**

- Primary account manager - Create and activate storm in storm tool
- Acquire and secure resources from utilities, private companies, muni's and coops that meets the criteria established by the Acquisition team lead. Negotiate terms and conditions as prescribed by team lead.
  - How many needed?
  - What is the timing?
  - When to make financial commitment.
  - Pricing limitations
  - Location to muster resources (in state, out of state)
  - Radius to acquire resources
- Primary account manager - As requested by team lead, serve as the SEE and EEI company representative
  - Participate and collaborate with national and regional mutual assistance associations
- Primary account manager - Resource outlook and forecast
  - Provide high level information on resources to be made available (example: Southern Company to release 200 people in 2 days to Progress Energy). Provide to Resource Management Director.
- Implement Crew Demobilization Plan
  - Notify home office first of release as directed by Crew Mobilization team leads
- Major issue resolution
  - Handle unique issues as requested by the crew mobilization team leads or the resource management director (examples: request for crews to sleep on cots, etc)

**Key Interface Points**

- Crew Acquisition Team Lead (RM2)
- Crew Mobilization Team Lead (RM3 & RM4)

**Methods of performing job duties**

- Conference Calls with SEE and EEI
- Participating in system storm calls
- Face to face, voice and email communications with team leads, external and internal resources/employees

**Measures of success**

- Crews acquired compared to goal
- No safety related incidents

**Checklist of Actions**

**Before Major Storm**

- Setup storm in Storm Resource Tracking Tool
- Determine schedule for crew acquisition support team and communicate
- Access to phone bank, printer, fax machine, and scanner

**During Major Storm**

- Utilize storm mailboxes for all email communication
- Maintain key contact information (Contractors, SEE, EEI, etc.)
- Ensure adequate team resources are on hand and available for upcoming shifts
- Ensure daily deadlines/goals are met in regards to crew acquisition
- Ensure contracts and work releases are secured for each contractor
- Ensure compliance with SEE and EEI agreements

**After Major Storm**

To be included in a future revision of this document

**Tools and Information Needed**

- Storm Resource Link (the web based crew tracking tool)
- Contracts and Work Releases for Contractors
- SEE and EEI agreements

**RM2B1: Support (Tree)**

**Job Description**

This position will:

- Assign crews to the regions based on direction from their lead
- Be responsible for meeting report and tool update deadlines during the course of the day (refer to crew timeline)
- Handle incoming questions from the region storm room and handle, or route, accordingly
- Track internal tree resources moved to another area
- Run reports at designated times and provide to the lead
- Maintain back up information in case tool becomes inoperable at some point in the process
  - Maintain daily log book -Print crew lists and information twice per day and insert into tracking book to assist in reconciliation

**Crew communication Team**

Responsible for manual GPS on tree crews

- Ensure the calls are being made to incoming crews, and that the tool is being updated with the latest ETA's
- Track status of movement
- Once on system, initiate a daily call to ensure there are no issues

**Crew communication**

- Provide directions to their show up site
- Provide regional contact information when appropriate

**Request rosters**

- Ensure rosters are received from each crew
- Load information into a centralized page
- Ensure crew ID is included on the roster

**Ensure smooth transition from system to regions for incoming crews**

- If mustering site is used, after arriving there, turn them over to the region for future communication
- If mustering site not used, turn the crew over to the receiving region within 2-3 hours of arrival
- To facilitate the transition, the system will call the crew and notify them that the region will now take over communication. Give the crew the region phone number and contact name but have the region initiate the call.

**\*\* Need a Spanish speaking person on the team**

**Checklist of Actions**

**Before Major Storm**

- Refresher/Dry run of Storm Resource Tool
- Access to phone bank, printer, fax machine, and scanner

**During Major Storm**

- Utilize storm mailboxes for all email communication
- Ensure timely and accurate input of resources acquired into Storm Tool
- Communication with Resource Mobilization team when new teams are mobilized

**Documents/forms needed to perform functions:**

- Resource Mobilization Daily Timeline (attachment A)
- Storm Resource Link (the web based crew tracking tool)
- Directions to staging sites

**Primary support location where employee works from:**

- System storm room

**Training Requirements**

- Working knowledge of Resource Link Tool
  - Reporting function
  - Crew Mobilization function

**Checklist of Actions**

**Before Major Storm**

- Establish via IT , email account for both line and tree support
- Establish via IT, router/hub network connection for team laptop computers
- Determine schedule for support team and communicate
- Determine if special travel access/documentation is required (obtain appropriate paperwork) – for contract crews
- Access to Fax machine/scanner
- Access to printer for rosters and reports
- Ensure crew mobilization storm kit and pre-storm checklists are prepared/completed as outlined
- 2 hour Resource Link Tool refresher/dry run (via Live Meeting), if the tool has not been used within 1 month

**During Major Storm**

- Utilize storm mailboxes for all email communication
- Maintain key contact information (fleet, materials, etc.)
- Ensure adequate team resources are on hand and available for upcoming shifts
- Timely reporting available for daily storm calls
- Communicate Crew Mobilization system team phone numbers and e-mail addresses to Regions and Operating Centers.
- Ensure team has Region and Op Center storm team phone numbers and e-mail addresses
- Ensure daily deadlines/goals are met in regards to input and crews ready to work
- Create/update daily log for exchange of issues from day shift to night shift

**RM3A: Line Mobilization Support**

**Job Description**

This position will:

**Tool input and crew splits**

- Assign crews to the regions based on direction from their lead
- Provides crew leader with team ID number
- Be responsible for meeting report and tool update deadlines during the course of the day (refer to crew timeline)

**Region support**

- Handle incoming questions from the region storm room and handle, or route, accordingly
- Track internal tree resources moved to another area
- Run reports at designated times and provide to the lead
- Maintain back up information in case tool becomes inoperable at some point in the process
  - Maintain daily log book -Print crew lists and information twice per day and insert into tracking book to assist in reconciliation



- Responsible for manual GPS on crews
  - Ensure the calls are being made to incoming crews, and that the tool is being updated with the latest ETA's
  - Once on system, initiate a daily call to ensure there are no issues
- Responsible to ensure rosters are received
  - Ensure rosters are acquired from incoming crews and populate a shared drive with that information
- Ensure smooth transition from system to regions for incoming crews
  - If mustering site is used, after arriving there, turn them over to the region for future communication
  - If mustering site not used, turn the crew over to the receiving region within 2-3 hours of arrival
- To facilitate the transition, the system will call the crew and notify them that the region will now take over communication. Give the crew the region phone number and contact name but have the region initiate the call.
- Track internal line resources moved to another area
- Resource forecast – ensure a resource forecast is available to the regions to provide a picture of resources to come through the upcoming week
- Developing a contingency plan if tool is inoperable or phone lines are down
- Ensuring the crew mobilization storm kit and pre storm checklists are prepared/completed as outlined
- Ensuring direction books are available to provide appropriate information to incoming crews
- Provide the needed system reports at designated times

**Primary Interfaces:**

- Region Resource Coordinators
- Fleet services
- Staging and Logistics system liaison
- Materials management
- Crew acquisition account managers

**Methods of performing job duties:**

- Face to face leadership of team members
- Participating in storm calls
- Voice and email communications with external and internal resources/employees

**Measures of success:**

- No safety related incidents
- Crew ready to work. % (Compare how many resources you forecast to be on property ready to work, versus, how many resources ultimately were available)
- Tool input complete by prescribed daily deadlines

**Documents/forms needed to perform functions:**

- Resource Mobilization Daily Timeline (attachment A)
- Storm Resource Link (the web based crew tracking tool)
- Directions to staging sites

**Primary support location where employee works from:**

- System storm room

**Training Requirements**

- Working knowledge of Resource Link Tool
  - Reporting function
  - Crew Mobilization function

**Checklist of Actions****Before Major Storm**

- Establish via IT , email account for both line and tree support
- Establish via IT, router/hub network connection for team laptop computers
- Determine schedule for support team and communicate
- Determine if special travel access/documentation is required (obtain appropriate paperwork) – for contract crews

**Checklist of Actions****Before Major Storm**

- Contact Team Lead for schedule
- Attend 2 hour Resource Link Tool refresher/dry run (via Live Meeting), if the tool has not been used within 1 month

**During Major Storm**

- Utilize storm mailboxes for all email communication
- Timely reporting available for daily storm calls
- Ensure daily deadlines/goals are met in regards to input and crews ready to work

**RM5: System RSVP Coordinator****Job Description**

This position will:

- Participate in daily system call with regions
- Manage the process of receiving requests, and staffing, non craft and technical manpower requests on behalf of Florida distribution regions
- Maintain a tracking tool for assignments and personnel (utilize the Storm Resource Link to input the damage assessment resources; utilize separate RSVP tool for balance of support personnel)
- When internal resources are not available, contact PEC and contractor availability
- Employee point of contact – Serve as a central point of contact for those resources recruited or secured to fill gaps
- Interface with Carolina RSVP system coordinators to share resources between distribution organizations

**Primary Interfaces:**

- Region Resource Coordinators
- PEC storm support coordinator
- Damage assessment system team
- Fleet services
- Outside contract companies
- Staging and Logistics

**Methods of performing job duties:**

- Face to face leadership of team members
- Participating in storm calls
- Voice and email communications with external and internal resources/employees

**Measures of success:**

- No safety related incidents
- 98% of available PEF employees signed up in RSVP tool
- Support resource requests filled
- Tool input complete by prescribed daily deadlines

**Documents/forms needed to perform functions**

- System RSVP Process Document
- 48 HR & 24 HR Procedure for PEF RSVP Coordinators
- 96 HR & 72 HR Procedure for PEF RSVP Coordinators
- RSVP Non Line Resource Flow Chart
- Resource Request Template
- Resource Template

**Checklist of Actions****Before Major Storm**

- Contact System Storm Coordinator for schedule
- Attend RSVP refresher training, if tool has not been used within two months

**96 Hour Checklist**

- Respond to System Coordinator's e-mail to acknowledge receipt of notification and to confirm that you will begin working next steps
- Notify your Management of storm responsibilities/requirements
- Determine if your group is impacted by the major event (i.e. Ops Centers, physical location, or main storm support groups)
- Follow the 96-hour flow chart according to the impact of your area/group
- Contact your resources
- Update the availability of each resource in the RSVP system
- Release resources who are available but not needed in your area in the RSVP system
- Take care of all personal needs (medicine, pets, family, etc.)
- Wait for next instructions from System Coordinator at 72-hour mark

**72 Hour Checklist**

- Receive 72-hr e-mail/notification from System Coordinator with latest updates and next steps
- Follow the 72-hour flow chart according to the impact of your area/group. Follow up with resources who have not yet responded or been contacted regarding availability (out of office, could not be reached, etc.)
- Assign resources to their roles as they are known at this point (with location if applicable)
- Wait for next instructions from System Coordinator at 48-hour mark

**48 Hour Checklist**

- Receive 48-hr e-mail/notification from System Coordinator with latest updates and next steps
- Follow the 48-hour flow chart according to the impact of your area/group
- Follow up with resources who have not yet responded or been contacted regarding availability (out of office, could not be reached, etc.)
- Assign resources to their storm roles (with location if applicable) in RSVP tool - mandatory at this 48-hr mark
- Communicate resource gaps, if any, to System Coordinator (Region Coordinator if in Distrib. Ops)
- Wait for next instructions from System Coordinator at 24-hour mark

**24 Hour Checklist**

- Receive 24-hr e-mail/notification from System Coordinator with latest updates and next steps
- Follow the 24-hour flow chart according to the impact of your area/group
- Assign final resources to their storm roles (with location if applicable) in RSVP tool
- Communicate resource gaps, if any, to System Coordinator (Region Coordinator if in Distrib. Ops)
- Communicate any last-minute changes as needed and update these changes in RSVP tool (System Coordinator, Storm Resource Link Contact, Management, other Resources, etc.)
- Communicate all resource updates (resources, locations, constraints, etc.) to your Management
- Prepare for landfall of major event, along with any further instructions from System Coord. or Mgt.

**After Storm Landfall**

- Continue to allocate and shift resources in the RSVP tool as needed to respond to the restoration efforts
- Communicate updates with Management as needed
- Remain responsive to any given direction throughout the duration of the restoration efforts

## Checklist of Actions

### 72 Hours Prior to a Storm

- Review Resource Tracking tool
- Take care of personal needs (medicine, pets, family, etc.)
  - Review personal safety tips.
    - \\nt000070\shares70\Distribution Storm Plan\Resource Management-PEF\Region Resource Coordinators\Hurricane Safety Tips
- Review System Storm Plan – Resource Management Section
  - EMG-EDGF-00052
- Communicate pre-storm information to Resource Management personnel and Regional Storm Team
- Activate the Operations Center Resource Management Coordinators
- Verify RM storm organization is fully staffed.
- Ensure RM personnel are fully trained to their storm roles.
  - Attend 2 hour Resource Tracking tool refresher/dry run (via live meeting).
- Communicate with S&L to validate staging sites to be opened.
- Setup daily storm calls with Operating Center resource coordinators.
- Ensure updated contact list for Region Personnel/Storm Rooms and Resource Management.
- Ensure updated RM contact information is posted on the Storm Center web site.
- Ensure key interfaces have been identified with their contact information.
- Ensure assigned storm room is functional.
- Participate on RSM and System storm preparation conference calls
- Engage Mobilization Team on special needs.
  - Tree Climbers and Back Lot Line personnel are needed in SCO.

### 48 Hours Prior to a Storm

- Review Resource Tracking tool
- Communicate with Regional Storm team
- Communicate pre-storm information to Resource Management personnel
- Communicate with S&L to validate staging sites to be opened
- Decide when to send employees home to make personal preparations.
- Provide employee assistance information to employees.
- Engage Region and Operating Centers on the following resource needs:
  - See Procedures \\nt000070\shares70\Distribution Storm Plan\Resource Management-PEF\Region Resource Coordinators
    - Rental vehicles
    - Radios
    - Satellite Phones
    - Marsh Masters
    - Boats.

### 24 Hours Prior to a Storm

- Review Resource Tracking tool
- Facilitate the development of pre-storm resource allocation plan. Assign resources to Op. Centers by crew.
- Notify Op. Center RM Coordinators of their assigned crews.
- Communicate with Regional Storm team
- Communicate pre-storm information to Resource Management personnel
- Communicate with S&L to validate staging sites to be opened
- Ask employees to consider family needs and/or evacuations where necessary.

**RM6A: Crew Tracking Team**

**Job Function**

This group is responsible for supporting the Regional Resource Coordinators efforts to mobilize, track, deploy and release assigned resources in the region

**Job Description**

- Utilize the Resource Link tracking tool
- Engage with Regional RSVP Coordinator to ensure PE employee activation is current
- Assist the Regional Work Planning and Review team

Document title

# Performance Support

Document number

**EMG-EDGF-00053**

Applies to: Energy Delivery – Florida

Keywords: emergency; distribution system storm operational plan

## Mission

Performance Support is responsible for the support, configuration, compilation, analysis, and reporting of accurate outage information during major storm restorations. This information is used to communicate with customers and government agencies, and to facilitate deployment of appropriate resources such as line crews.

## Roles and Responsibilities

### Organization Chart

PS1: Performance Support Coordinator

*PS2: Retired*

PS3: Performance Reporting

PS4: Data and Resource Logistics

PS4A: IT Logistics Coordinator

PS5: Outage Management System Support

PS5A: OMS IT Grid Management Support

## Check Lists

96 Hour Preparation

72 Hour Preparation

48 Hour Preparation

24 Hour Preparation

DURING MAJOR STORM RESTORATION

## Sub-processes

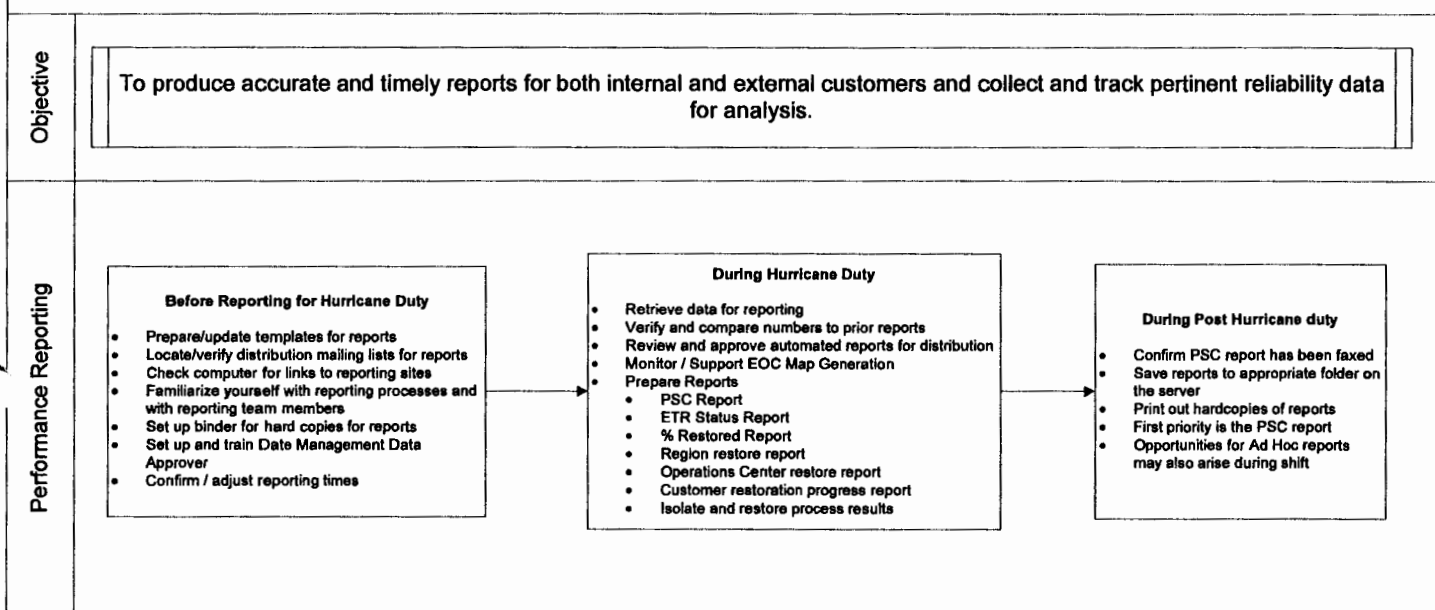
The Performance Support functional process includes the following sub-processes:

- Performance Reporting
- Outage Management System Threshold Management

The Performance Support team participates in the following sub-processes:

- Assess, Isolate and Restore ( Section EMG-EDGX-00051)
- Customer equipment damage disconnect (CEDD D1) and reconnect (RCR R1) orders

## Performance Report Sub-process



## Outage Management System Threshold Management

This sub-process supports restoration efforts by maintaining an optimal threshold (ratio of calls to downstream transformers) during a major storm event.

The following personnel are engaged in OMS Threshold Management:

- OMS Support (PS5)
- Dispatchers (DCC2A2)



## **Job Descriptions (PS1-PS5)**

### **PS1: Performance Support Coordinator**

#### **Job Function**

This position is responsible for all Performance Support activities and team members. This position is typically the Distribution Performance Support Unit (DPSU) manager.

#### **Job Description**

- Provide direction for all Performance Support initiatives
- Facilitate the coordination of Performance Support teams at the system storm center, regions, and back office
- Coordinate and collaborate with other team leads
- Set daily objectives for the Performance Support team
- Monitor and check the publication of performance reports
- Oversee the utilization of resources for Performance Support activities
- Coordinate with the OMS/TCA help desk and IT&T to maintain system performance
- Provide direction for the Performance Support back office functions
- Escalate process issues to System Storm Coordinator
- Participate in system storm calls
- Participate in Performance Support calls
- Maintain voice and e-mail communication with external and internal resources/employees
- Establish system storm start time from System Storm Coordinator
- Establish threshold authority from System Storm Coordinator
- Carryout Checklist for 96, 72, 48 and 24 hours before the System Storm

#### **Key Interface Points**

- System Storm Coordinator
- Performance Support team
- Distribution Control Center Coordinator (DCC1)
- System Data Management Coordinator (DCC4A)
- Regional Data Management Coordinator (DCC4B)

#### **Tools and Information Needed**

- Wireless Air Card
- Restoration performance reports
- Performance Support resource availability/utilization

#### **Training Requirements**

- System storm plan objectives
- Communication methods
- Performance Support organization overview
- OMS threshold philosophy
- Storm Drills

#### **Engaged in the Following Sub-processes**

- Estimated Time of Restoration Management ( Section EMG-EDGX-00051)
  - Performance Reporting
  - Assess, Isolate, and Restore (See EMG-EDGX-00051)
- OMS Updates (Damage Assessment Modeling / Outage Completion) ( Section EMG-EDGX-00051)

**PS4: Data and Resource Training / Logistics****Job Function**

This position is responsible for coordinating personnel, hardware, and software to support the Performance Support team as well as distribution system application training needs of the regional organization.

**Job Description**

- Obtain direction from Performance Support Coordinator
- Estimate gap in hardware, software, personnel resources
- Communicate demand for additional PC devices to OMS trouble call help desk support (PS5)
- Facilitate the move of hardware/software to identified locations
- Prepare list of potential additional I-Dispatch/Desktop MOMS operators based on region needs
  - Collaborate with IT&T/DCC for additional, unassigned resources
  - Collaborate with IT&T / DCC DM1 to verify current OMS map is published to desktop MOMS
- Create prioritized listing for deployment of additional resources
- Facilitate directions, lodging, transportation, arrival and departure of traveling Performance Support personnel
- Participate in Performance Support calls
- Update PS Storm - Share point site including contact information for all Performance Support resources
- Maintain contact with traveling Performance Support resources
- Prepare Helicopter fly over schedule and put on standby at PS1: Performance Support Coordinator direction

**Key Interface Points**

- Performance Support Coordinator (PS1)
- Performance Support team
- Staging and logistics (hotels)
- Fleet (rental cars)
- DCC, Data Management Team
- IT&T

**Tools and Information Needed**

- Wireless Air Card
- Available, off system resources to supplement op center Performance Support teams

**Training Requirements**

- Performance Support organization overview
- Storm Drills
- Communication methods

**Engaged in the Following Sub-processes**

Performance Reporting

**PS5: Outage Management System Support****Job Function**

This position is responsible for the performance of all restorations systems, and key technical personnel.

**Job Description**

- Obtain Performance Support objectives from the Performance Support Coordinator (PS1)
- Provide direction and oversight of OMS IT Grid Management Support (PS5A)
- Collaborate on roll-up logic adjustments
- Administer data collection for Performance Reporting (PS3)
- Advise and change roll-up logic when requested
- Monitor and advise on disposition of system performance
- Participate in system storm calls
- Participate in Performance Support calls
- Oversee refresher and update training program
- Supply training for I-Dispatch and Desktop MOMS systems (Train the Trainer)
- Elevate issues to Performance Support Coordinator
- Coordinate with key IT&T resources to start, run, and maintain storm only procedures and applications
- Coordinate with key CSC PSU Contacts for Turning off callbacks.
- Toggle restoration call-backs (Operation Center Level)

**Key Interface Points**

- Performance Support Coordinator
- DCC
- IT&T
- CSC PSU Contact

**Tools and Information Needed**

- Wireless Air Card
- Laptop
- Region expectation for additional I-Dispatch/Desktop MOMS PCs

**Training Requirements**

- Performance Support organization overview
- Storm scenarios workshop
- Communication methods

**Engaged in the Following Sub-processes**

Performance Reporting

**When we have storm drills OR real events, there are two types of calls held by the System Storm Coordinator:**

1. Operations calls- Includes small group of operational leaders, typically Distribution Services Director and DPSU Manager. Checklist items are discussed and decisions are made
2. System calls - Includes large group of system leaders (operations, plus support services (Distribution Services Director and DPSU Manager). It is more of a report out call for senior leadership to hear that there aren't any issues and to report high level activities
3. Both calls are generally limited to Distribution Services Director and DPSU Manager however, team members would be on if they are covering for another member

## **96 Hour Preparation**

**(BEFORE MAJOR STORM)**

- ☐ Start participating on System Storm Calls.
- ☐ Contact OMS Vendor Intergraph.
- ☐ Ensure that Performance Support Storm Organization Chart is up-to-date.
- ☐ Alert all Performance Support personnel that 96 hour checklists have begun for awareness.

## **48 Hour Preparation (BEFORE MAJOR STORM)**

- ☐ Verify ALL 96 Hour and 72 Hour Checklist Items
- ☐ Verify Deployment of OMS / I-dispatch hardware
- ☐ Create all needed templates for Day 1
  - ☐ All Reporting Templates
    - ☐ PSC
    - ☐ Customer by county
  - ☐ Logistic Forms
- ☐ Start to schedule conference calls (2 per day) with leads (CSC, DCC, System & Regional PS Coordinators, Resource Deployment & OMS Help Desk, DPSU leads, Business Excellence POC, and IT Coordinator, Performance Support IT Grid (PS5a)
- ☐ Set-up Performance Support OMS Storm operational room in coordination with System Storm Coordinator
- ☐ Test Restoration Trends Report
- ☐ Coordinate with CSC PSU & IT&T Crisis Manager to reconcile the number of customers by county for the Outage Mapping Application (I-Factor)
- ☐ Hold - Evaluate Aerial Transformer Verification (Helicopter Fly-Over) standby status

## **Questions to Ask on 48 hour System Calls:**

- Will the DCC be centralized or decentralized? (DCC determined)

## **DURING MAJOR STORM RESTORATION**

- ☐ Place OMS Status in “storm” mode
- ☐ Turn customer call-backs for ETR changes > 30 minutes off (Done by CSC)
- ☐ Assess whether to adjust Straggler Call Time Threshold (The Straggler call program in IT ignores any call that comes in within 15 min of a recently close outage. This item in the check list is to assess whether this number needs to be changed based on the occurrence of straggler calls)
- ☐ Based on call volume, determine if 21st Century latency filtering is required and note who contacts who. (The 21st Century poller (CSC programs which pass the calls to OMS) have a 45 min filter on them. The logic says, if the call was taken over 45 minutes ago, ignore it)
- ☐ After Damage Assessment, determine roll-up threshold % and indicate what action must be performed. Reference rollout threshold document on share point site
- ☐ Monitor OMS timeliness performed by PS5 and PS5A
- ☐ Work with the DCC DM1 to develop ETRs by county for PS5A to load the ETR by county table for state EOC reporting
- ☐ Hold - Perform ATV (Helicopter fly over) process as needed. (System Storm Coordinator determined)
- ☐ Determine End of Storm (System Storm Coordinator determined)
- ☐ Restoration callbacks: (DCC and Call Centers make determination): the team can disable in OMS at Op Ctr level, or the call center can turn off at system level
- ☐ Ask when to start publishing the EOC Reports (county, state and Media)
- ☐ Ask when to stop publishing the EOC Reports (county, state and Media)
- ☐ Restore systems to normal after completion of storm
  - ☐ ETR call-backs > 30 minutes ON
  - ☐ Enable restoration callbacks
  - ☐ OMS Roll Up Threshold to Normal (normal means 8-10%)
  - ☐ Remove OMS Status from “Storm” mode (DPSU communicates to IT)
  - ☐ Reset Straggler Call timeout to normal (15 min)
  - ☐ Work with CSC to be sure the 21st Century latency filtering is set back to normal (45 min)
  - ☐ Remove OMS Snapshot (peak customers out) from storm mode
  - ☐ Bring EOC reporting to “Normal”

Document title

# Region

Document number

EMG-EDGF-00054

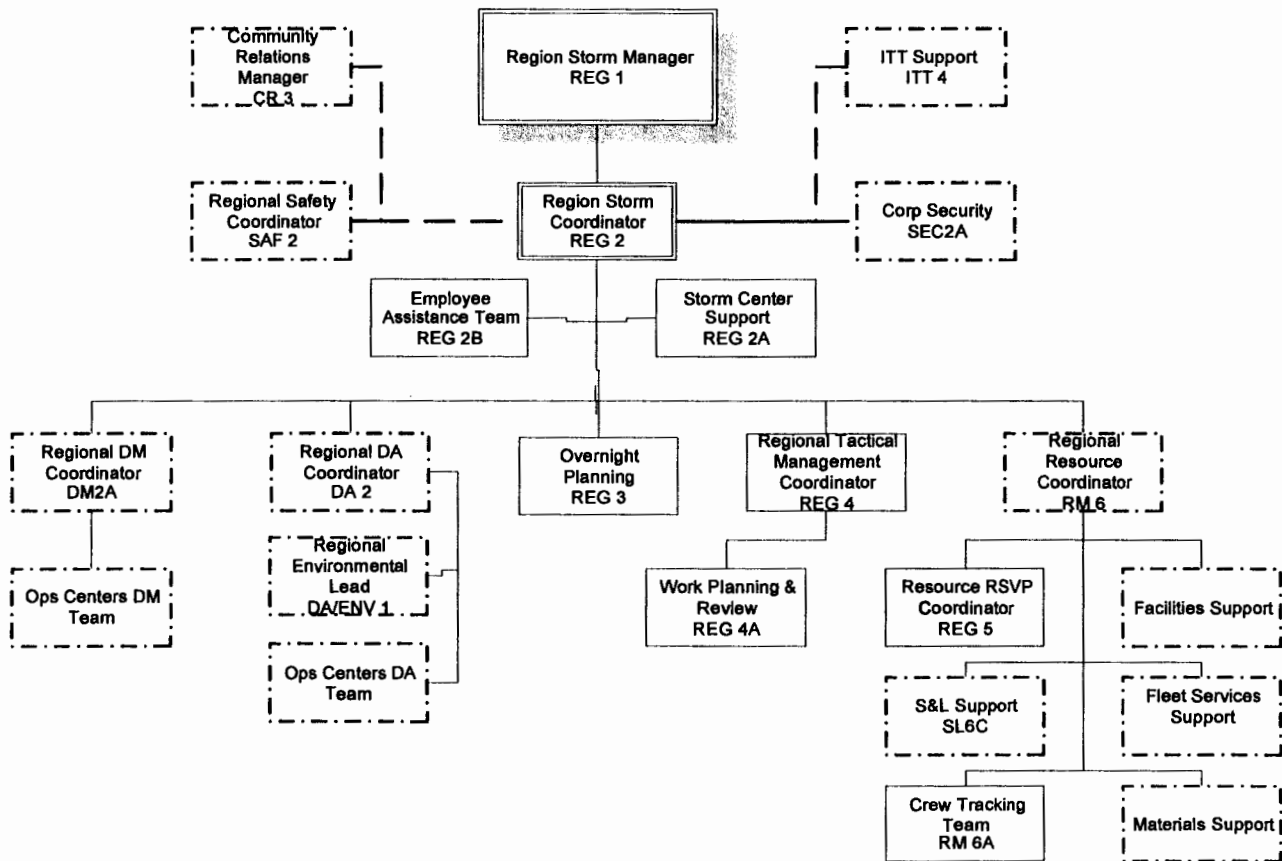
Applies to: Energy Delivery – Florida

Keywords: emergency; distribution system storm operational plan

## Mission

The Regional Storm Organization will

## Organization Chart



NOTE: The above represents a typical Region structure. This structure may vary, as conditions within each Region warrant.



**REG2: Regional Storm Coordinator****Job Function**

This position may be filled by the Regional GM or assigned to a qualified designee by the Regional GM. This position is responsible for the management of all of the regional resources during a major storm.

**Job Description**

This position is responsible for:

- Maintaining a regional storm plan by ensuring the plan is reviewed and updated annually.
- Managing the regional storm center during major storm restoration efforts
- Identify storm training gaps within the regional storm organization and fill need.
- Supporting storm restoration efforts outside of their service territory, when required.

**Key Interfaces**

- Regional Storm Manager (REG1)
- Operations Center Coordinator (OPS1)
- Community Relations Manager (CR3)
- Regional Storm Team
- Regional storm support group coordinators (DA, DM, RM Etc.)
- Regional Safety Coordinator (SAF2)

**Checklist of Actions****Before Major Storm**

- Assign roles for the regional storm team (regional storm organization chart)
- Verify critical contact lists are updated
- Regional Storm Center is prepared for use
- Participate in regional storm preparation conference calls

**During Major Storm**

- Manage the regional storm room

**Tools and Information Needed**

- Contact list for entire Operations Center storm organization chart
- County EOC issues spreadsheet
- Priority customer/feeder list for Operations Center

**REG2A: Storm Center Support****Job Function**

This position will provide administrative support the Regions Storm Center. This position will typically be the Regional RSVP Coordinator, also.

**Job Description**

This position will report to the Region Storm Coordinator (REG2) and assist the effort by:

- Support phone communications
- Organizing storm center reports
- Maintaining office supplies throughout the restoration effort
- Assist storm personnel where necessary
- Maintain office functionality during the restoration effort

**REG4: Regional Tactical Management Coordinator**

**Job Function**

It is the responsibility of this position to support an efficient storm restoration effort through planning and communication. The Tactical Management Coordinator will remain fully engaged with the Regional Resource Coordinator, Regional DA Coordinator, Community Relations Manager and Regional Data Management Coordinator to ensure the timely execution of the regions restoration plan. This position will engage with the Operations Center storm planning team with critical links to the Operation Center Tactical Management Coordinators.

**Job Description**

**Duties:**

- Execute the regional restoration plan to meet established goals.
- Work with the Regional Resource Coordinator to establish efficient deployment of assigned resources.
- Verify damage assessment, oms data and resource mobilization updates are current.
- Ensure procurement of specialized equipment.
- Ensure Emergency Crew work, with input from Community Relations Manager, is incorporated into the regional restoration plan.
- Develop adjustments to the regional restoration plan as needed.

**REG4A: Work Planning and Review**

**Job Function**

This group is responsible for supporting the Regional Tactical Management Coordinators efforts to complete an efficient storm restoration effort.

**Job Description**

These positions will:

- Receive crew mobilization updates from the Regional Crew Tracking Team
- Assist in gathering updated damage assessment information and oms modeling
- Assist with the development of daily restoration plans
- Assist with developing communication of updated restoration plans
- Coordinate with appropriate internal and external customers to order and receive specialized equipment

# Operations Center

Document number

EMG-EDGF-00055

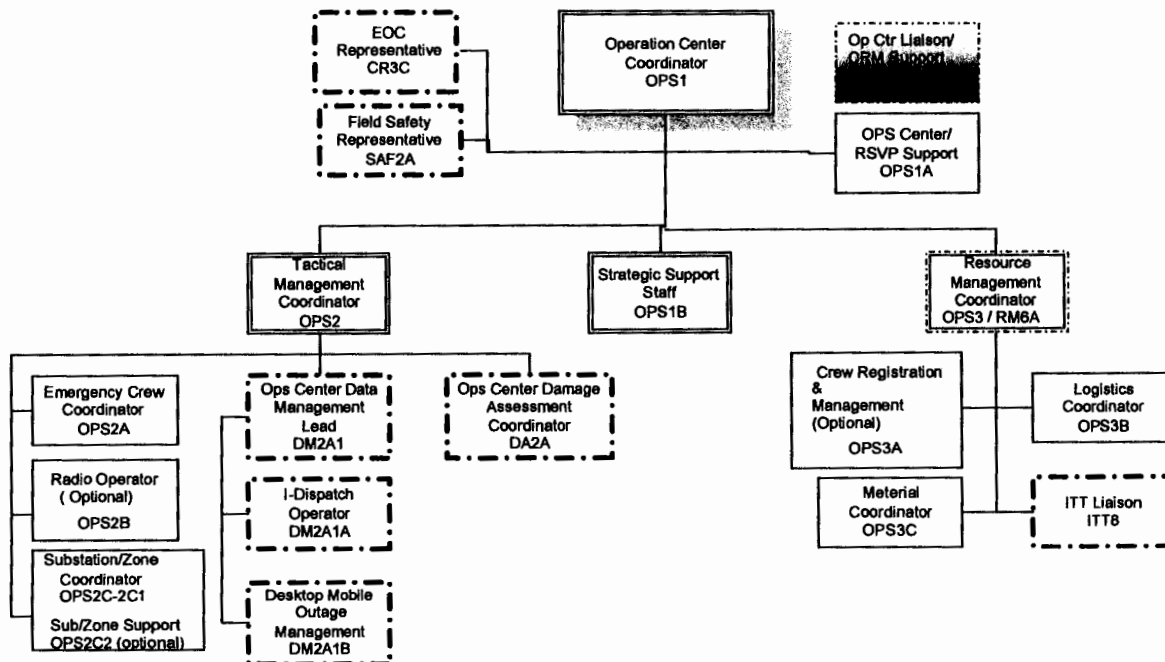
Applies to: Energy Delivery – Florida

Keywords: emergency; distribution system storm operational plan

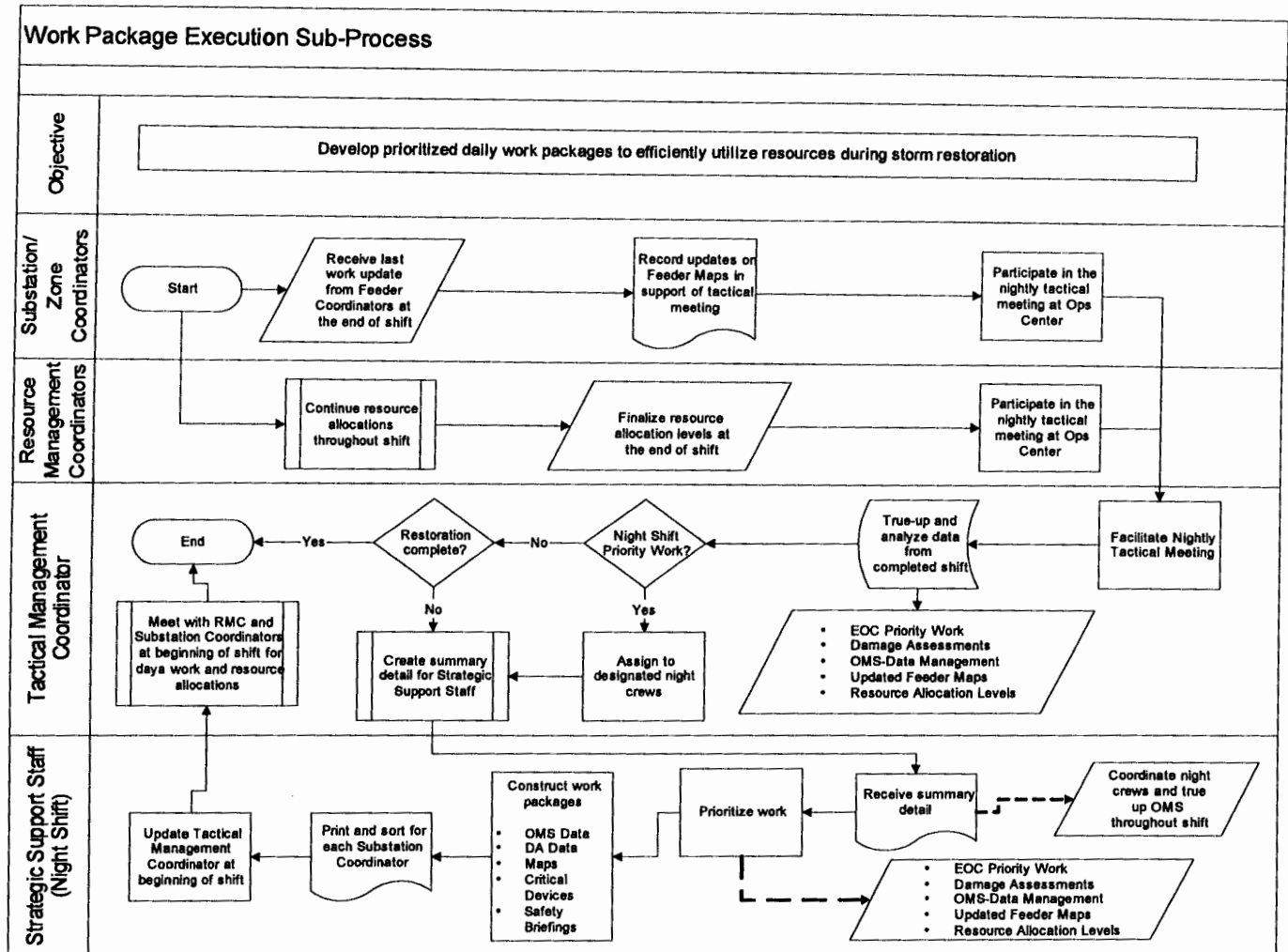
## Mission

It is the mission of each Progress Energy Operations Center to ensure that storm plan personnel training, materials and equipment are current for the specific purpose of efficiently executing storm plans according to expectations pertaining to safety, cost, restoration times and other key performance indicators to ensure success for the company, its employees and its customers.

## Organization Chart



The following flowchart offers a detailed view of this sub-process:



## Damaged Disconnect Order

This sub-process addresses the process for identifying, recording, and flagging damaged accounts in CSS that cannot receive service during the storm restoration effort. This sub-process supports accurate OMS modeling and outage reporting by separating accounts that cannot receive service from the outage management system. In addition, the accurate logging of these accounts supports the development of post restoration work plans for back log work requests.

The following personnel are engaged in the Damaged Disconnect Order sub-process:

- Operation's Center Storm Coordinator (OPS1)
- Damage Assessors (DA2A1)
- Ops Center Data Management Lead (DM2A1)
- Service/R&D Personnel

## **Job Descriptions (OPS1 – OPS3C)**

### **OPS1: Operations Center Coordinator**

#### **Job Function**

This position will typically be the Operations Point of Contact (supervisor) assigned to the center. This position provides the managerial oversight for the entire operation centers restoration effort. The OPS1 reports directly to the REG1 for the assigned region. This position should maintain a storm organizational and planning focus throughout the restoration effort.

Current storm supporting forms, guidelines and tables for use by the Operations Centers can be found by utilizing the following link:

[PEF Supplemental Forms](#)

#### **Job Description**

This position is responsible for ensuring:

- The storm organizational chart is updated and that there are no personnel gaps prior to storm season (some roles will be filled by supporting storm organizations or by PEC through the RSVP tool as needed)
- Storm personnel are fully trained
- The critical feeder lists are current
- EOC critical equipment and infrastructure lists are current
- The establishment of a work schedule that ensures a smooth transition between shifts - a 2 hour overlap is recommended
- The Regional Storm Center receives timely updates as required
- The Operation Center storm restoration effort meets established goals.

Utilize the following form for identifying critical feeders and their restoration priority:

[Feeder Prioritization form](#)

#### **Key Interface Points**

Regional Storm Manager (REG1)

Tactical Management Coordinator ([OPS2](#))

EOC Representative ([ER3B](#))

Resource Management Coordinator ([OPS3](#))

DA Environmental Lead ([DA/ENV1](#))

#### **Before Major Storm**

Prior to storm landfall, the state of readiness for the Operation Center Storm Team is a critical component for a successful restoration effort. To assist the Operations Center Coordinator in verifying the level of readiness, the following checklist should be used:

[Operations Center Pre-Storm Checklist](#)

#### **During Major Storm**

- Emphasize a safe restoration effort – Maintain personal safety as a value
- Ensure you can account for all assigned PE employees throughout the restoration effort
- Maintain a current list of all contract and other off-system crews working within your restoration activities
- Communicate restoration crew arrivals to the Region Storm Coordinator (REG2)
- Monitor OMS updates and ensure information accuracy
- Ensure prioritized feeder lists are being utilized
- Prioritize and respond to critical customer or emergency issues
- If nuclear sites are within your area of responsibilities, support the nuclear siren restoration plan
- Ensure oil spill events and other environmental issues are forwarded promptly to the Regional Environmental lead (DA/ENV1)

**RSVP Checklist of Actions****Before Storm Landfall**

- 72-96 hours prior, begin identifying Ops Center employees' availability for storm duty and input data into RSVP tool.
- 48-72 hours prior, complete employee availability input into the RSVP tool and begin activation of employees
- 24-48 hours prior, complete activation of all identified Ops Center employees
- 0-24 hours prior, finalize any pre-storm resource allocation plan adjustments in the RSVP tool.

**During Restoration Effort**

- Periodically update resource allocation adjustments in the RSVP tool throughout the restoration effort
- Release employees from Ops Center storm support, as they become available, for use by other storm organizations
- Identify released Ops Center employees that are not able to support other storm organizations as "Not Available" in the RSVP tool

**After Restoration Effort**

- Release all Ops Center employees from the current storm in the RSVP tool
- Participate in any lessons learned exercises after each storm event
- Forward lessons learned results to the System RSVP Coordinator

**Supporting Tools**

- RSVP Tool
- RSVP Quick Reference Guidelines
- RSVP Training Manual

**After Major Storm**

- Participate in lessons learned process

**Battlefield Promotion Success Factors**

- Meeting daily operational goals
- Effective collaboration with the Tactical Management team and Operations Center Coordinator

**Engaged in the Following Sub-processes**

- Work Package Execution

**OPS2: Tactical Management Coordinator****Job Function**

The Tactical Management Coordinator is responsible for prioritizing the outage restoration and the flow of high-priority outages. The Tactical Management Coordinator is responsible for ensuring that the Operations Center's restoration strategy is followed. This position supports the Operations Center restoration efforts by maintaining an organized "tactical" approach to battling a storm. In addition, this position helps to drive the data management modeling and reporting based on established timelines. This position is responsible for ensuring timely updates on ETR's and meeting the Operations Center commitment to the customers.

**Job Description**

- Organize incoming requests from the county EOCs
- Ensure EOC spreadsheet is updated on restoration progress
- Ensure EOC and emergency work has been assigned to dedicated (priority-emergency) crews
- Assign work to Substation/Zone Coordinators (OPS2C-1) for completion
- Provide oversight to the entire restoration process within the Operations Center, keeping focused on the critical/priority issues
- Provide feedback to the Operations Center Coordinator (OPS1) on high-priority issues
- Ensure storm room maintains engagement with county EOCs (via phone, fax, messenger/runner)
- Communicate with Operations Center Storm Room staff
- Maintain communications with dedicated resources and Substation/Zone Coordinators (OPS2C-1)
- Overseeing the data management process and ensuring ETR's are updated in a timely manner.

**Key Interface Points**

- Operations Center Coordinator (OPS1)
- Emergency Crew Coordinator (OPS2A)
- Resource Management Coordinator (OPS3)
- Substation/Zone Coordinators (OPS2C1)
- Progress Energy contact at county EOC

**Checklist of Actions****Before Major Storm**

- Review Operations Center storm plan
- Communicate with Operations Center Coordinator (OPS1)
- Validate Critical Feeder List
- Help develop restoration strategy for Operations Center
- Coordinate with ITT and the Regional Data Management Coordinator for OMS machines, as needed.



**Key Interface Points**

- Tactical Management Coordinator (OPS2)
- Resource Management Coordinator (OPS3)
- Substation/Zone Coordinators (OPS2C-1)
- Progress Energy contact at county EOC

**OPS2B: Radio Operator (Optional)****Job Function**

This position is responsible for radio communications between the Operations Center and field personnel such as Feeder/Field Coordinators and restoration crews, especially when dispatching functions have been de-centralized from DCC.

**Job Description**

This position will ensure:

- Storm radios are functional
- Maintain radio etiquette per corporate policy and procedures
- Assist in the storm center set up
- Assist OMS Coordinators as required
- Stay current on crew locations
- Assist in emergency 911 calls

**OPS2C-1: Substation/Zone Coordinator****Job Function**

The Substation/Zone Coordinator will normally be a supervisor with line and service experience. The position can be an experienced line and service person or other qualified employee. This individual must have strong field experience in distribution operations and should be very familiar with their assigned zone.

**Job Description**

The Substation/Zone Coordinator will be assigned restoration authority over a specific zone, generally at the substation level. They may be assigned a zone of more than one substation. They will be responsible for coordinating all restoration crews, Feeder/Field Coordinators (OPS2C1A), and Guides/Scouts (OPS2C1B) in their assigned zone. They will have the authority to control and direct the field switching activities as designated by the Operations Center Coordinator (OPS1). This position will receive daily prioritized work packages created by the Strategic Support Staff (OPS1B).

**Pre-storm Planning Functions:**

- Become familiar with assigned zone and know the location of feeder circuits, switches and reclosers
- Become familiar with the critical customers and feeder priorities in assigned zone
- Recommend to the Operations Center Coordinator (OPS1) any improvements in the circuit feeds, tie lines and switches in assigned zone that would facilitate storm restoration

**Crew Management Functions:**

- Ensure all crews include an assigned, qualified, Feeder/Field Coordinator (OPS2C1A)
- Assign Guides/Scouts (OPS2C1B) to assist Feeder/Field Coordinators (OPS2C1A) or crews as needed
- Direct, coordinate and manage the activities of all restoration resources in assigned zone
- Assign restoration priorities to Feeder/Field Coordinators (OPS2C1A)
- Ensure the proper handling of materials

**Key Interface Points**

- Feeder/Field Coordinators (OPS2C1A)
- Guides/Scouts (OPS2C1B)
- Operations Center Coordinator (OPS1)
- Dispatcher (DCC2A2)
- Environmental Lead (DA/ENV1)

**Tools and Information Needed**

- Feeder Priority Listing
- GIS Update form

**Training Requirements****Before Major Storm**

- Help develop restoration strategy for Operations Center storm plan
- Complete understanding of Operations Center Storm Plan and roles and responsibilities
- Ensure familiarity with assigned substations/zones
- Maintain updated feeder/TA maps
- Undertake refresher training on MOMS and OMS
- Communicate storm plan with feeder coordinators assigned to your substations/zones
- Successfully participate in annual storm drill

**Battlefield Promotion Success Factors**

- Meeting Operations Center ETRs by feeder/county
- Effective restoration plan
- Executing the Operations Center restoration plan
- Following the regional vision statement: "Everyone Matters"

**Engaged in the Following Sub-processes**

- Work Package Execution

**OPS2C1A: Feeder/Field Coordinator****Job Function**

The Feeder/Field Coordinator will typically be a line or service person or other qualified employee who is familiar with the territory. This individual reports to the Substation/Zone Coordinator (OPS2C-1) and the coordination of restoration crews and support needs with staging teams and logistics personnel. This position will receive daily prioritized work packages from the Substation/Zone Coordinator (OPS2C-1) and will be responsible for issuing and coordinating these with the assigned resources/crews. Guides/Scouts (OPS2C1B) may be assigned to the Feeder/Field Coordinator, if needed.

**Job Description****Crew Coordination Functions:**

- Stay engaged with the foreman/supervisor of assigned crews
- Coordinate restoration activities with the Substation/Zone Coordinator (OPS2C-1)
- Ensure the proper handling of material
- Keep tree crews ahead of construction crews
- Communicate construction standards

### **Key Interface Points**

- Substation/Zone Coordinator (OPS2C-1)
- Guides/Scouts (OPS2C1B)
- Dispatcher (DCC2A2)
- Environmental Lead (DA/ENV1)

### **Checklist of Actions**

- Maintain area maps
- Maintain updated one line grid maps
- Stay engaged with assigned personnel and crew leads
- Inspect work for PE specification adherence -
- Document temporary repairs and forward to Substation/Zone Coordinator
- Document location and type of equipment and materials that will need to be loaded and properly discarded

### **Tools and Information Needed**

- Feeder Priority Listing
- GIS Update form

### **Training Requirements**

- Understand restoration strategy for Operations Center storm plan
- Have a complete understanding of Operations Center storm plan and roles and responsibilities.
- Ensure familiarity with assigned feeders
- Maintain updated feeder/TA maps
- Undertake refresher training on MOMS and OMS
- Patrol assigned feeder (know the roads and isolating points)
- Review switching and tagging
- Have a working knowledge of any unusual equipment on assigned feeders (LSS scheme, ATS, Itella-team, etc.)
- Successfully participate in annual storm drill

### **Battlefield Promotion Success Factors**

- Meeting Operations Center ETRs by feeder
- Effective restoration plan
- Execution of Operations Center restoration plan
- Following the regional vision statement: "Everyone Matters"

### **Engaged in the Following Sub-processes**

- Work Package Execution

### **OPS2C2: Substation/Zone Coordinator Support (Optional)**

#### **Job Function**

This position will primarily support the Substation/Zone Coordinators and will assist in the in the delivery of material, equipment or food or other communication items.

#### **Job Description**

Employees assigned to this position should be very familiar with the service area.

#### **Key Interface Points**

Substation/Zone Coordinator (OPS2C1)  
Feeder/Field Coordinator (OPS2C1A)  
Assigned Crew Foremen/Lead

**Job Description**

- Utilize the Resource Tracking tool to organize and track incoming crews
- Communicate with the Operations Center Coordinator (OPS1) to determine the appropriate distribution of incoming resources
- Participate in all Resource Management conference calls
- Participate in all regional resource storm calls
- Provide feedback to the Operations Center Coordinator (OPS1) and Substation/Zone Coordinators (OPS2C-1) regarding information covered in these calls

**Key Interface Points**

- Region Storm Coordinator (REG2)
- Operations Center Coordinators (OPS1)
- Regional Resource Coordinator (REG5)
- Staging and Logistics leads located at staging sites
- Substation/Zone Coordinators (OPS2C-1)

**Checklist of Actions****Before Major Storm**

- Review Resource Tracking tool
- Communicate with Regional Resource Coordinator (REG5)
- Communicate with Staging and Logistics to validate staging sites to be opened

**During Major Storm**

- Attend storm conference calls
- Update Resource Tracking tool
- Communicate with Operations Center Coordinator (OPS1) and Substation/Zone Coordinators (OPS2C-1)
- Allocate internal and external contractor resources to Substation/Zone Coordinators (OPS2C-1)
- Assign appropriate contractors to areas in need
- Provide feedback to the Regional Resource Coordinator (REG5), Operations Center Coordinator (OPS1), and Substation/Zone Coordinators (OPS2C-1)

**After Major Storm**

- Communicate transition of resources off-system
- Update Resource Tracking tool
- Prepare for Sweep type work and additional resources needed
- Prepare reports for Regional Resource Coordinator (REG5) on numbers of resources used and their overall effectiveness
- Participate in lessons learned

**Tools and Information Needed**

- Communication with Operations Center Storm Room staff
- Conference calls with Regional Resource Coordinator (REG5)
- Contact list for entire Operations Center storm organization chart
- Resource Tracking tool

**Training Requirements****Before Major Storm**

- Participate in Resource Tracking tool training
- Have a complete understanding of the Operations Center storm plan and roles and responsibilities
- Successfully participate in annual storm drill

# Customer and Marketing Services

Document number

EMG-EDGF-00056

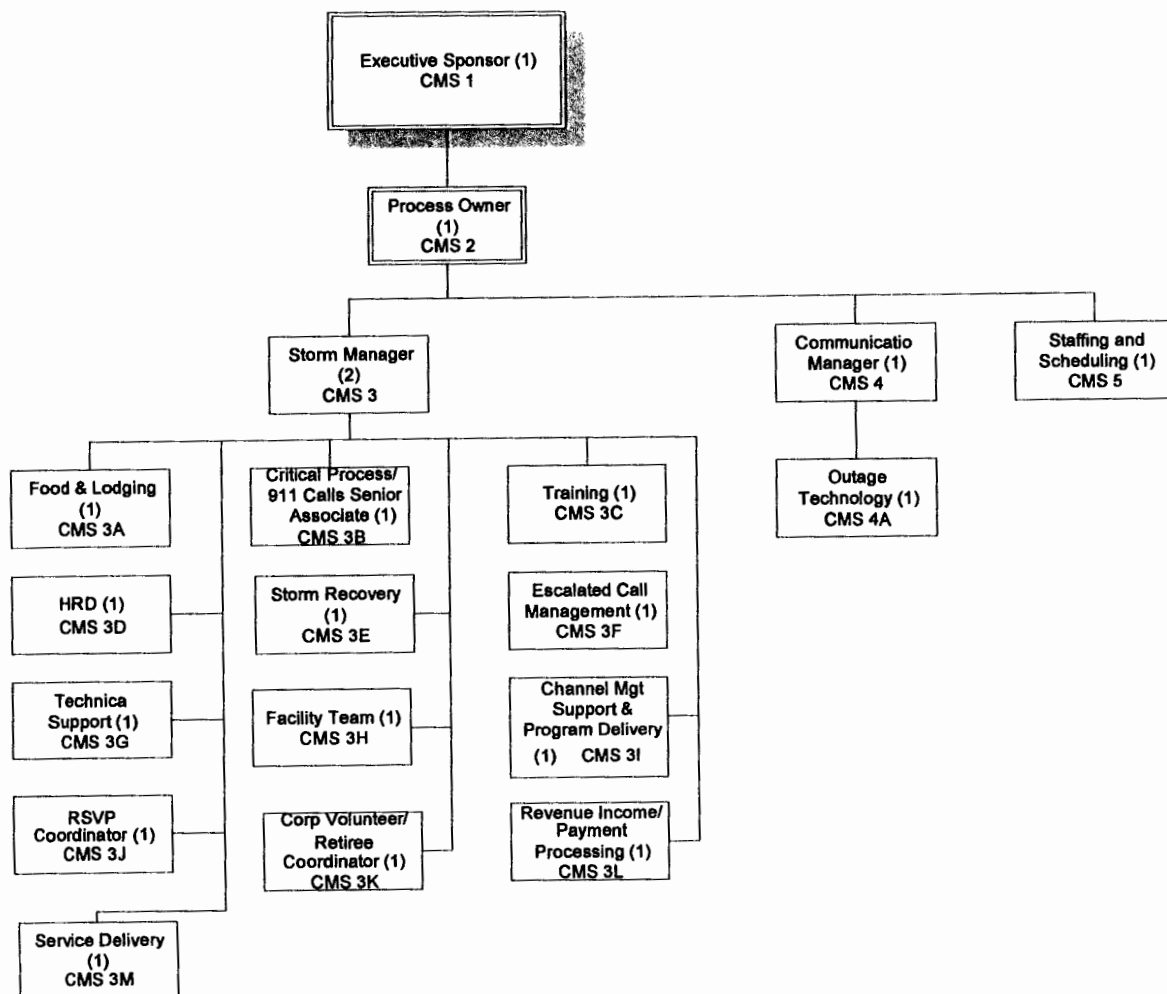
Applies to: Energy Delivery – Florida

Keywords: emergency; distribution system storm operational plan

## Mission

Customer and Marketing Services (C&MS) consistently and effectively communicates with empathy to Progress Energy customers on the status of major storm response and restoration efforts. C&MS also accurately and efficiently collects outage data for use by Energy Delivery in restoration efforts.

## Organization Chart



**CMS1: Executive Sponsor**

**Job Function**

The Executive Sponsor collaborates with the Executive Leadership team of Progress Energy in determining the storm will be declared a major event. The executive sponsor collaborates with other executives to secure corporate resources from other areas of the company as needed. The Executive Sponsor informs the Process Owner of the decision to implement the Hurricane/Major event plan.

**Job Description**

- Interfaces throughout the major event with the PE Executive leadership team on event response, resources needed and estimated recovery times.
- Provides governance oversight of the Customer Service response to the major event.
- Authorizes use of third party resources and outsourcers to assist in the customer response effort.

**Key Interface Points**

- Progress Energy Executive leadership team
- Customer Service Process Owner
- Storm Manager
- Communications Manager

**Checklist of Actions**

**Before Major Storm**

- Negotiate in advance with other PE executives the release of corporate resources for assisting in the overall storm response.
- Approve overall storm/major event response plan developed by the Process Owner.
- *During Major Storm*
- Secure corporate resources as needed
- Collaborate with other PE executives as needed on overall corporate response to the event. Provide relevant performance metric data to PE Executive leadership team.
- Collaborate with the process owner to ensure the overall Customer Service response strategy is implemented consistent with the PE objectives to drive desired business results.
- *After Major Storm*
- Collaborate with the Process Owner on the development and implementation of a recovery plan to effectively restore the department's performance to pre-storm levels.

**Tools and Information Needed**

- Estimated storm impact from weather bureau.
- Estimated time of service restoration from Energy Distribution.
- Historical customer response to similar events
- Complete Customer and Marketing Services Storm Plan

**Training Requirements**

**Before Major Storm**

- Review and understand C&MS major storm plan.
- Review and understand PE major storm plan.
- Review and understand past PE major event performance, tools and capabilities.

## **Training Requirements**

### ***Before Major Storm***

- Review and understand C&MS major storm plan.
- Review and understand PE major storm plan.
- Review and understand past PE major event performance, tools and capabilities.

## **Battlefield Promotion Success Factors**

- Coordination with Process Owner, Storm Manager and Communications Manager
- Participation in Executive, System and Department storm calls.

## **CMS3: Storm Manager**

### **Job Function**

In collaboration with the Process Owner, coordinate the C&MS execution of the Hurricane/Major Event storm plan.

### **Job Description**

- Participate in the system storm calls to obtain information on the storm status, overall impact, and PE response. Communicate C&MS performance metrics.
- Conduct and lead the C&MS department hurricane/major event coordination meetings.
- Coordinate with the other Storm Managers to ensure effective, consistent communication to customers, internal employees and other PE departments.
- Collaborate with Process Owner, Executive Sponsor on adjustments needed to the C&MS execution plan.

### **Key Interface Points**

- Process Owner
- Communications Manager
- Training Manager
- Human Resource Department
- Food and Lodging Coordinator
- 911 Response Team
- Call Services Managers

### **Checklist of Actions**

#### ***Before Major Storm***

- Review and understand C&MS major storm plan.
- Review and understand PE major storm plan.
- Review and understand past PE major event performance, tools and capabilities.
- Communicate roles/responsibilities to each employee within C&MS.
- Conduct pre-storm coordination call with each member of the C&MS Storm leadership team.

#### ***During Major Storm***

- Collaborate and lead the Department Hurricane/Major Event coordination meetings.
- Directly accountable for working with process analysts and subject matter experts to make corrections as needed in the storm response execution.
- Ensure thorough communication occurs between Carolinas and Florida to seize potential synergies, best practices, observations, etc.

#### ***After Major Storm***

- Lead the Hurricane Lessons Learned discussion
- Collaborate with C&MS leadership team to assign responsibility for implementing change to close the gaps identified during the lessons learned process.



***After Major Storm***

- Coordinate the payment of invoices received for services during the storm.

**Tools and Information Needed**

- Staffing plans for determining the number of meals to be served.
- Contact information for the corporate Travel department.
- A list of vendors/caterers in the area that have been helpful in past storms.

**Training Requirements**

***Before Major Storm***

- Understanding of past menus and employee preferences.
- Understanding of helpful caterers and vendors within the area.

**Battlefield Promotion Success Factors**

- Communication with Storm Manager

**CMS3B: Critical Process/911 Senior Associates**

**Job Function**

The Critical Process/911 Calls Senior Associates receives incoming calls from 911 Emergency Operations Centers during major storm events, evaluates the level of urgency, and responds to the caller's request using sound judgment.

**Job Description**

- Confirm with 911 Senior Associate schedules, availability, tools and expectations of assignment.
- Work safely but efficiently.....each call received may be a life or death decision process.
- At the beginning of each shift, verify with Senior Associate current storm situation and any process changes/updates.
- Process each call utilizing the following steps:
  - Log into network and start CSS
  - Log into Rockwell to begin receiving calls, utilizing regular log-in ID.
- When accepting calls...
  - Determine caller's name
  - Verify telephone number where caller can be reached
  - Determine address where caller is reporting the problem.
  - Determine reason for call:
    - **Is a life in immediate danger if Progress Energy (PE) is not on site immediately for rescue?** If yes, transfer call immediately to the life-threatening line in dispatch- 1-866-570-5949. Provide the caller information to dispatch and explain the nature of the call. If the call cannot be transferred to this line for some reason, immediately contact the Team Lead for assistance.
    - **If no life is in immediate danger....**
      - If power is out, enter the reason for the call in the Outage Management System (OMS), including all customer information, and specific information reason for customer call.
      - If power is on, or if there is no valid address associated with the event, create an Immediate Problem Ticket. (IPT) Examples could include trees in wires, arcing wires, pole down, etc. Complete all requested information on the IPT form.

**Key Interface Points**

- Direct customer contact
- Dispatch/Call Services management
- Senior Associates and associates

### **Job Description**

Develop a training program for corporate volunteers covering all aspects of responding to customer inquiries during a major event. This includes:

- Signing into the ACD switch to take calls.
- Communication of passwords necessary.
- A high level overview of the 911 process.
- Understanding of how to transfer calls
- Key words/phrases to use in responding to customers
- Understanding of the C&MS web page.
  - Information on Estimated Restoration Times
  - Corporate Messaging
  - Food Service
- Development and Delivery of annual training to existing PE employees on outage processing.
  - 911 Calls
  - Outages
  - Trees Down
  - Individual Service outages
  - Immediate Problem Tickets
  - Engineering Investigate Orders
  - Other Tickets

### **Key Interface Points**

Storm Manager (CMS3)

Human Resources Department

Communication Manager (CMS4)

### **Checklist of Actions**

#### ***Before Major Storm***

- Develop training materials for corporate volunteers and existing employees
- Identify trainers
- Obtain passwords for use by corporate volunteers

#### ***During Major Storm***

- Conduct training for corporate volunteers
- Coordinate with Storm Manager any training needs identified during the event.

#### ***After Major Storm***

- Participate in the lessons learned process to communicate any training improvements needed

### **Tools and Information Needed**

List of corporate volunteers

Training rooms

Trainers

Passwords

CSS/CIM knowledge

### **Training Requirements**

#### ***Before Major Storm***

- Understanding of all CIM/CSS processes related to storm response
- Understanding of HELP and department web page
- Understanding of key success factors for delivery of training

**CMS3E: Storm Recovery**

**Job Function**

After a major storm, an action plan is needed to guide the C&MS department through the post storm recovery process. This position is responsible for developing the plan for addressing the back-log in WFM items, Credit and Collections and increased call volume after the event. After approval of the plan, the Storm Recovery Manager will coordinate the securing of contract personnel needed, work completion status, communicating with the leadership team the status of field work and the subsequent processing times for field work.

**Job Description**

- While the major event is still in process, develop an action plan to address backlogs in WFM's, collections and the effect of increased telephone calls resulting from the storm impacts. (Including delay in regular service due to the storm along with debris removal calls, customer complaints and service restoration due to the storm)
- Determine new in service dates from Energy Delivery for new service installation, street light repair, meter reading, service orders, tree trimming and collections.
- Develop a specific recovery plan for approval by the Process Owner.
- Coordinate the hiring of contract personnel to assist C&MS in meeting the objectives outlined in the recovery plan.

**Key Interface Points (removed CAO Manager below)**

- Call Flow Supervisor
- Storm Process Owner
- Call Services Managers
- Service Delivery Supervisor
- Regional Service Operations Managers
- DSM Supervision (FL)
- Employee Development Supervisor

**Checklist of Actions**

**Before Major Storm**

- Complete understanding of C&MS Hurricane/Major Event Plan.
- Complete understanding of regular business completion targets.
- Contact list/understanding of hiring process for contract employees

**During Major Storm**

- Monitor backlog of work within CAO, Energy Delivery and DSM (FL) for use in developing the impact analysis of the storm.
- Develop the overall recovery action plan
- Obtain approval for the plan from the Process Owner.
- Place order for contract employees identified in the recovery plan.

**After Major Storm**

- Coordinate training with the Employee Development Supervisor for contract employees.
- Communicate backlog information to the Communications Manager.
- Provide regular updates on backlog status to the C&MS leadership team, Energy Delivery and DSM (FL)

**Tools and Information Needed**

- Backlog information from CAO, Energy Delivery and Call Services
- Contact information for temporary employment agencies
- Temporary company badge and password information.
- Extensive knowledge of work processes with C&MS.

**Tools and Information Needed**

- Escalated Call forms

**Training Requirements**

**Before Major Storm**

- Complete Phase I and Phase II training for Customer Service Associates
- Complete follow-up outage training
- Review and understand C&MS philosophy for customer complaint handling
- Review and understand strategy utilized with Energy Delivery for damage assessment, estimated times of restoration, and post-storm activity

**Battlefield Promotion Success Factors**

- Coordination with peers on taking escalated calls
- Review and understanding of current restoration efforts, their status, and key communication points for customers
- Review of CSC Storm Page for consistency of data
- Clarifying with peers the philosophy on accepting escalated calls

**Engaged in the Following Sub-process**

- Critical Process/911 Calls

**CMS3G: Technical Support**

**Job Function**

The purpose of this position is to serve as a liaison between Energy Delivery, Information Technology and C&MS during a major event in the areas of Estimated Restoration Times, Call Back parameters, and settings within the automated call back process.

**Job Description**

- Physically located in the Energy Delivery dispatch centers, collaborate with Energy Delivery Managers, process experts in the development and communication of Estimated Restoration Times. (ERT)
- Adjust restoration call back parameters as requested by Energy Delivery, Storm Manager, Communications Manager or Storm Manager.
- Communicate extensively with the Communications Manager on storm response.

**Key Interface Points**

- Director, Central Dispatch Center
- Communications Manager
- Manager, Information Technology
- Storm Manager
- Process Manager

**Checklist of Actions**

**Before Major Storm**

- Complete understanding of the C&MS Hurricane/Major Event Plan
- Complete understanding of the restoration process within Energy Delivery
- Complete understanding of the outage, outbound dialing process with C&MS
- Access to the parameters section of the Customer Service outbound dialing dialogue.

***During Major Storm***

- Contact Building Maintenance with any facility related issues
- Communicate with Storm Manager

***After Major Storm***

- Perform a visual inspection of the building to identify any property damage
- Coordinate with Building Maintenance the repair of any identified issues.
- Coordinate the removal of any storm related items.
- Return facility to normal operation.

**Tools and Information Needed**

- Contact names/numbers for building maintenance
- General knowledge of facilities history, issues, weaknesses

**Training Requirements**

***Before Major Storm***

- General knowledge of facilities, location of generators, water control valves, breaker switches, and lighting systems.
- Contact information for Building Maintenance

**Battlefield Promotion Success Factors**

- Coordination with the site managers and Building Maintenance

**CMS3I: Channel Management Support & Program Delivery**

**Job Functions**

Provides assistance to customers that require an electrical contractor to complete repairs to their meter base damaged by the storm before service can be restored.

**Job Description**

- Coordinates electrical contractor network with PE customers requiring assistance with repair of their meter can due to damages associated with a major storm.

**Key Interface Points**

- Storm Manager
- Communications Manager
- Electrical Contractor Network
- New Construction Supervisor

**Checklist of Actions**

***Before Major Storm***

- Negotiate contract with Electricians participating in Home Wire program to assist customers impacted by the storm

***During Major Storm***

- Communicate with Electricians to confirm availability
- Coordinate with the Communications Manager, Supervisor of New Construction the approved contractors list to share with customers.

**During Major Storm**

- Participate in storm conference calls
- Update CSC Storm Page
- Communicate the following to CSC employees:
  - Weather/storm status
  - Resources assigned to the restoration (number of line crews, tree trimming, etc.)
  - Corporate estimates of restoration times
  - Any work process changes/updates
  - Communications being provided to customers (corporate messages or through technology)
  - Facilities information including food, shelter, evacuation, etc.

**After Major Storm**

- Communicate to all employees assisting with the storm restoration effort in C&MS the transition back to normal operations staff requirements
- Return routing plans to normal

**Tools and Information Needed**

- E-mail/Web page tools

**Training Requirements**

**Before Major Storm**

- Review and understand strategy utilized with Energy Delivery for damage assessment, estimated times of restoration, and post-storm activity
- Review and understand Progress Net, including purpose, layout, publication times, and general content
- Review and understand C&MS Major Storm Plan
- Have complete knowledge of Communication team associates, contact information, and schedules
- Have clear understanding of Voice Response Unit Automated Call Distribution (ACD), 21st Century, and Convergent Resources, Inc. (CRI) applications

**Battlefield Promotion Success Factors**

- Coordination with Raleigh Communication Manager for overall understanding of communication strategy
- Keeping a copy of C&MS/Corporate Communications meeting times
- Keeping a copy of C&MS Major Storm Plan, including roles/responsibilities and list of team associates

**Engaged in the Following Sub-process**

- Critical Process/911 Calls

**CMS4A: Outage Technology**

**Job Function**

Outage Technology collaborates with the Energy Delivery Data Management team on developing appropriate technology for communication between C&MS and Energy Delivery. This individual also manages geographic messaging to deliver a consistent message from Corporate Communications and Customer and Marketing Services.

**Job Description**

- Meet daily with the Energy Delivery Data Management team to identify any communication issues between the functions
- Contact 21st Century daily to resolve any communication issues and verify that technology is working as designed
- Serve as first point of contact for 21st Century to assist in any issue resolution
- Meet with Communications Manager and Energy Delivery Data Management team to confirm Callback parameters on updated estimate time of restoration and 21<sup>st</sup> Century reporting statistics
- Participate in storm conference calls
- Make adjustments as necessary to outage technology

**CMS5: Staffing and Scheduling**

**Job Function**

Coordinate schedules for agents to maximize phone coverage during Major Events.

**Job Description**

- Develop schedules for use during hurricanes/major events.
- Update all changes within eWFM system.
- Provide schedules and staffing numbers throughout the day to management.

**Key Interface Points**

- Storm Manager
- Communication Manager

**Checklist of Actions**

***Before Major Storm***

- Determine the potential number of agents per shift based on the staffing availability.
- Develop schedules for use during the events.

***During Major Storm***

- Coordinate breaks and lunches for the agents.
- Provide hour by hour staffing numbers to management as requested.
- Update all changes within the eWFM system.

***After Major Storm***

- Restore prior shifts to eWFM system
- Load any segments related to storm as requested by management.

**Tools and Information Needed**

- Up to date staffing info.
- Agents with extenuating circumstances and/or assignments.
- Any changes being implemented by management outside of normal major event guidelines.

**Battlefield Promotion Success Factors**

- Communication with Storm Manager



**CMS3K: Corporate Volunteer/Retiree Coordination**

**Job Function**

The purpose of this team is to coordinate the scheduling and training of Corporate Volunteers/Retiree's who will help Customer and Market Services during a major event.

**Key Interface Points**

- Site Managers
- Storm Managers
- Training
- RSVP Coordinator
- Comensura

**Job Description**

This position is responsible for:

- Contact Corporate Volunteers/Retiree's
- Coordinate access to building for Corporate Volunteers/Retiree's
- Coordinate training of Corporate Volunteers/Retiree's
- Coordinate schedules for Corporate Volunteers/Retiree's
- Coordinate with Comensura

**Checklist of Actions**

**Before Storm Landfall**

- RSVP Coordinator will provide a list of retirees out of the RSVP tool to Comensura
- Comensura will ensure that Bartech has the most up-to-date list of retirees currently registered in the RSVP tool
- Bartech will contact all individuals provided to complete the registration process and pre-employment paperwork prior to storm season
- PGN will provide Comensura with a list of approving managers for each storm area (damage assessment, staging & logistics, etc.)

**Engaging Resources:**

- 1) RSVP Coordinator will contact retirees directly to initiate storm duty
- 2) RSVP Coordinator will update the RSVP tool with the retirees' storm role upon activation.
- 3) RSVP Coordinator will contact Comensura with the individual(s) that have been engaged for storm support. Information that should be provided to Comensura: name, contact #, work location, storm role, approving manager, start date, and anticipated duration (we realize this could change depending on the storm). RSVP Coordinator will provide storm charge code to Comensura
- 4) Comensura will notify Bartech\* of the individuals that will be working the storm with all the pertinent information listed in #3.
- 5) Bartech will activate contractors in their system
- 6) Comensura will create assignments in their web-based system
- 7) Timesheets will be entered into the Comensura system weekly (week runs Saturday to Friday). Timesheets may be entered by Bartech, the individual contractor, or even Comensura depending on the situation.
- 8) Once timesheets are submitted, they are electronically routed to the appropriate approving manager for approval.
- 9) Manager approves timesheets via Comensura's web-based system
- 10) Bartech pays contractors weekly based on approved timesheets in the Comensura system.
- 11) Comensura invoices Progress Energy weekly for payment back to Bartech. Payment terms are Net 30.
- 12) Comensura will have the ability to generate reports as needed related to hours worked, charges, headcount, etc.

- \* If a contractor is actively on an assignment through the Comensura program at the time of a storm, that contractor will remain employed through his/her current staffing company (not necessarily Bartech).

**During Major Storm**

- Monitor, modify and communicate any team schedule changes
- Communicate any timeline changes with Key Interface points if needed.
- Update the Remittance employee information line.
- Verify previous days deposits were received
- Verify banks readiness for same day receipts of deposits.
- Update Raleigh CRP with current status

**After Major Storm**

- Communicate transition back to normal operation to the team
- Notify Raleigh CRP back to normal status
- Verify with Key Interface points of back to normal status.

**Tools and Information Needed**

- CSC Storm update status

**Training Requirements**

- None

**Battlefield Promotion Success Factors**

- Coordination with the site managers and Building Maintenance

**CMS3M: Service Delivery**

**Job Function**

In collaboration with the Regional Service Organization Managers, coordinate SDU resources to support RSO Dispatcher/RSO restoration functions during major storm events. In collaboration with New Construction supervisor ensure that all customer work requests are deferred appropriately and customers communicated with timely and effectively.

**Job Description**

- Participate in the system storm calls to obtain information on the storm status, overall impact, and PE response.
- Communicate and coordinate with RSM's to identify each regional support staffing need for restoration efforts.
- Collaborate with RSO on adjustments needed to the C&MS execution plan.

**Key Interface Points**

- Process Owner
- Regional Service Managers, Supervisors
- DCC Director, Supervisor
- Call Services Managers

**Checklist of Actions**

**Before Major Storm**

- Review and understand C&MS major storm plan and PE major storm plan.
- Review and understand past PE major event performance, tools and capabilities.
- Conduct pre-storm coordination with all SDU team members and communicate roles/responsibilities to each employee.

Document title

# Support Services

Document number

**EMG-EDGF-00057**

Applies to: Energy Delivery – Florida

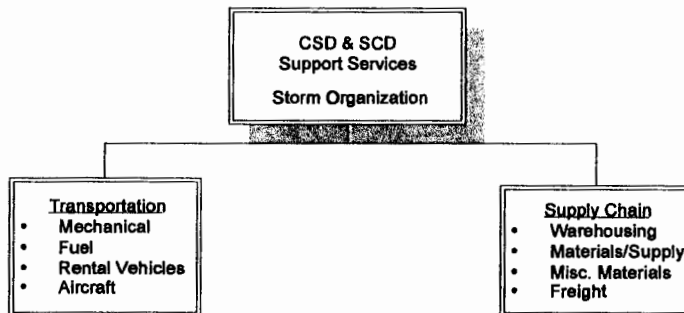
Keywords: emergency; distribution system storm operational plan

## Mission

The Support Services storm organization will fully support the storm restoration effort by meeting the needs of our customers in a timely and professional manner.

## Organization Chart

The following depicts the separate storm organizations that make up the Support Services Storm Organization



The following link to each of the above individual organizations storm plans within this document:

[Transportation](#)

[Supply Chain](#)

### **FL- 3 Fuel Storm Coordinator**

#### **Job Function**

This position manages the fuel storm organization to ensure vehicle and equipment fuel needs are met through out the storm restoration process.

#### **Job Description**

This position will:

- Prepare for gas and diesel fuel needs prior to each storm season
- Ensure contracted fuel tankers and wet fueling trucks are staged at appropriate sites
- Stay Engage with Corporate Security, Staging and Logistics site coordinators and Ops Center Coordinators to ensure fuel is being utilized for appropriate business use.
- Participate in sponsored lessons learned processes

### **FL- 4 RSVP Coordinator**

#### **Job Function**

This position is responsible for keeping the Fleet portion of the RSVP tool current. In addition, this position will support the C&MS storm response by updating the RSVP tool to accurately reflect the Fleet resource mobilization plan.

#### **Key Interface Points**

- Storm Manager
- System RSVP Coordinator

#### **Job Description**

This position is responsible for:

- Keeping the RSVP tool updated as employees transfer in and out of the Fleet storm organization
- Being the first point of contact for Fleet employees regarding RSVP questions or concerns
- Assisting employees when signing up for their storm role
- Participating in pre-storm season planning

#### **Checklist of Actions**

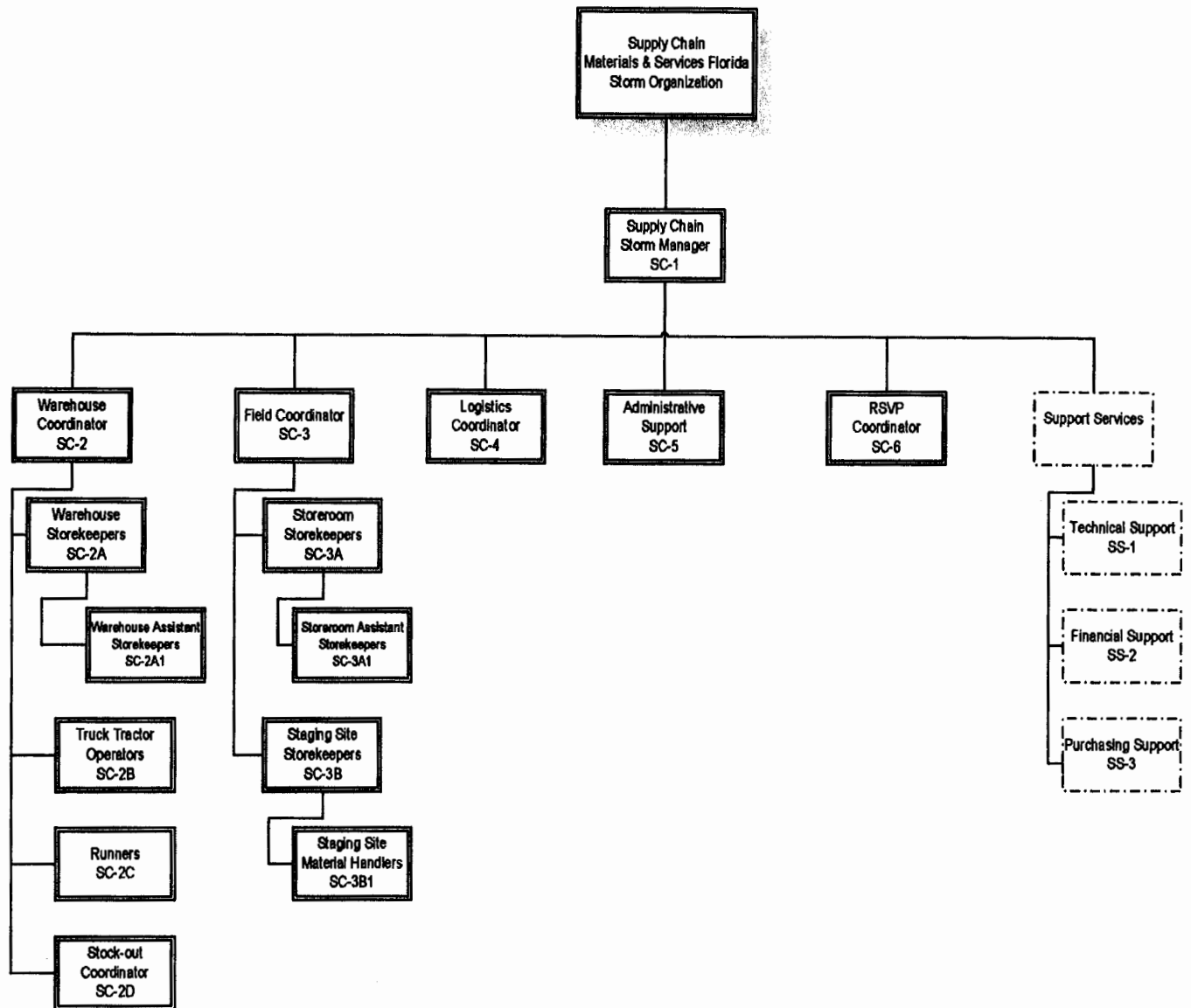
##### **Before Storm Landfall**

- 72-96 hours prior, begin identifying Fleet employees availability for storm duty and input data into RSVP tool.
- 48-72 hours prior, complete employee availability input into the RSVP tool and begin activation of employees
- 24-48 hours prior, complete activation of all identified employees
- 0-24 hours prior, finalize any pre-storm resource allocation plan adjustments in the RSVP tool.

##### **During Restoration Effort**

- Periodically update resource allocation adjustments in the RSVP tool throughout the restoration effort
- Release employees from storm support, as they become available, for use by other storm organizations
- Identify released employees that are not able to support other storm organizations as "Not Available" in the RSVP tool

# Supply Chain M&S FL Storm Organizational Chart



(Attachment A - M&S Florida Storm Contact Information)

## **Roles and Responsibilities**

### **SC- 1 Supply Chain Storm Manager**

#### **Job Function**

This position manages the appropriate SCD Storm organization to ensure major storm restoration work groups are fully supported.

(Attachment T – HR Storm Communication – Hurricane Season Reminders)

(Attachment P - Materials & Services Storm Plan - Florida)

#### **Job Description**

This position will:

- Assign storm coordinator responsibilities prior to each storm season
- Represent their storm organization on system storm conference calls
- Facilitate internal conference calls to ensure their storm organization is meeting the needs of their customers
- Sponsor internal lessons learned after each storm to ensure continuous improvement
- Serve as the primary communication contact for the Materials Storm Center
  - Ensure safety and storm response updates are provided to materials storm personnel in a timely manner
  - Coordinate communication between the Materials Storm Center Team (Materials Storm Coordinator, Field Operations Coordinator, Warehouse Coordinator, Logistics Coordinator, Financial Support Personnel, Technical Support Personnel, Administrative Support Personnel, and Site Procurement Personnel)
- Review staffing and equipment lists to ensure adequate resources are available to meet deadlines and commitments
- Confer with Information Manager to determine crew allocation and arrival times for staging sites
- Meet with Site Procurement personnel to obtain daily updates on material status. Provide guidance for activating the MEMS network
- Work with Logistics Coordinator to ensure employee meals, lodging and PPE needs are communicated and met.
- Determine staffing levels for Central Warehouse operation and field support
- Interface with Procurement personnel and provide information on the number of crews expected to support storm restoration efforts and provide guidance on the quantity of materials needed to support that effort

#### **Before Storm Season**

Prior to storm season, the state of readiness for the Materials & Services Storm Team is a critical component for a successful restoration effort. To assist the Supply Chain Coordinator in verifying the level of readiness, the following checklist should be used:

- Review and update Storm Plan
- Conduct storm drill and training
- Participate in ED storm drill
- Evaluate readiness of storm boxes and Staging & Logistics kits
- Cycle Count Storm List Material items monthly (May thru November)

**SC- 2 Warehouse Coordinator****(Attachment E- Materials Receiving Team)****(Attachment R – Engineering Standards Team)****Job Function**

This position coordinates the receipt, issue and delivery of all T&D materials needed to support storm restoration efforts.

**Job Description**

This position will:

- Coordinate the receipt, issue and delivery of material from Central Warehouse
- Provide direction to drivers and runners for the delivery of materials
- Coordinate with the Stock Out Coordinator
- Maintain material request tracking board
- Provide input for staffing levels needed for warehouse operations
- Report on status of work and volume of work completed
- Determine need for material recovery effort and communicate to Supply Chain Storm Coordinator
- Prioritization of material requests
- Maintain current status of material requests with Senior Material Coordinators in the field
- Set up work schedule and staffing for Central Warehouse Support
- Coordinate with Field Operations Coordinator to staff staging and logistics locations and operations centers as needed
- Hold daily safety stand-downs and pre-job briefs to ensure a strong safety focus is maintained in the performance of all tasks

**Key Interface Points**

Supply Chain Storm Manager (SC-1)  
Logistics Coordinator (SC-4)  
Field Operations Coordinator (SC-3)  
Truck/Tractor Operator (SC-2B)  
Administrative Support (SC-5)  
Information Manager  
Purchasing Support (SS-3)  
Stock Out Coordinator, Receiving (SC-2D)  
Staging site Storekeepers (SC-3B)  
Administrative Support (SC-5)

**Before Storm Landfall****Five days (120 hours) prior to the anticipated arrival of a storm:**

- Review weather information from the Storm Information Manager (919) 546-3128 or (VoiceNet) 8-770-3128 or cell phone (919) 632-8862. Inform Materials Storm Team of anticipated weather conditions.
- Assure site readiness. Conduct site walk down to assure equipment and materials are secure from high winds.
- Assure that equipment has been properly maintained and repaired.
- Arrange dumpster pick up daily
- Request that the Material Storm Coordinator-Carolinas to review inventory levels of storm items Cross Over materials.
- Ensure cycle count of storm material list
- Review the transformer backlog report.
- Develop an action plan for repairing most commonly used transformers.
- Coordinate to have leaker tubs emptied and transported to Central Warehouse.
- Print off the Manual MR Process (attachment U) to have on hand in the event PassPort is unavailable in both Florida and the Carolina's. If the Manual MR Process is to be initiated, all M&S employees will be notified by the management team after the storm's departure and it is safe to return to work.



- Warehouse Assistant Storekeepers (SC-3A1)
- Staging Site Storekeepers (SC-3B)
- Storeroom Storekeepers (SC-3A)
- Company and contractor personnel

**Before Storm Landfall**

**Five Days (120 hours) prior to the anticipated arrival of a storm:**

- Conduct site walk downs and secure equipment and materials from high winds
- Review fuel requirements for forklift trucks
- Communicate with Supply Chain Coordinator to ensure storm readiness
- Review storm plan and responsibilities
- Review storm stock to ensure sufficient material levels
- Receive and pick material requests as needed

**Four days (96 hours) prior to the anticipated arrival of a storm:**

- Receive and pick material requests as needed

**Two days (48 hours) prior to the anticipated arrival of a storm:**

- Receive and pick material requests as needed
- Ensure forklifts are fueled and operationally ready

**After Major Storm**

- Account for any recovered material that has been returned to the Central Warehouse

**SC- 2A1 Warehouse Assistant Storekeeper** (Attachment F - Materials Picking Team)

**Job Function**

This position supports the Warehouse Storekeeper at the Wildwood Central Warehouse with materials handling and readiness.

**Job Duties**

This position will:

- Assist Warehouse Storekeeper with site readiness and storm preparation at the Wildwood Central Warehouse
- Assist with material ordering, receiving and put-away
- Assist with material distribution to company and contractor personnel
- Assist with material recovery effort as needed
- Assist with site maintenance as needed

**Key Interface Points**

- Warehouse Coordinator (SC-2)
- Company and contractor personnel
- Truck/Tractor Operator (SC-2B)
- Runners (SC-2C)
- Administrative Support (SC-5)
- Staging Site Storekeepers (SC-3B)
- Storeroom Storekeepers (SC-3A)
- Warehouse Storekeepers (SC-3A)

**SC- 2D Stock-out Coordinator****Job Function**

This position ensures that material stock-outs are followed up on.

**Job Duties**

This position will:

- Serve as the point of contact for all stock out items
- Make a list of all stock out materials and requesting locations
- Make arrangements with the Warehouse Coordinator on delivery of stock out material when it is ready to be shipped to locations
- Contact the receiving team to make them aware of material that will be needed to fill stock outs (stock out board)
- Contact procurement representatives for the need of additional material
- Contact recovery personnel on need for stock out material
- Review all material requests with stock out items and set status to complete
- Check with Standards to see if any substitution of material that is stocked out can be made
- Follow up with requesting location to ensure need is still valid

**Key Interface Points**

- Warehouse Coordinator (SC-2)
- Warehouse Personnel
- Procurement Support
- Recovery Personnel
- Vendor Representative

**SC- 3 Field Operations Coordinator****Job Function**

This position is responsible for the staffing and operations of T&D Storerooms and materials support at Staging Areas in support of storm restoration efforts.

**Job Description**

This position will:

- Understand current material support needed from T&D Storerooms and staging sites
- Develop staffing plan, communicate and implement in support of storm restoration needs
- Coordinate with Logistics Coordinator to staff staging and logistics locations and operations centers as needed
- Establish communications with the Staging Site Storekeeper to stay informed of any changes in the number of crews assigned to a particular site
- Confer with Regional Energy Delivery Coordinator to determine crew allocation and arrival times for staging sites
- Monitor and support materials personnel needs at field locations. Have equipment needed, ensure safety and storm briefings are occurring, material management protocols are being followed, personnel housing and meals needs are being met, staffing at materials locations is adequate
- Be visible in Regional Storm Center
- Address issues as needed with Staging and Logistics Team Lead at staging areas and DOMs at operation centers

**Key Interface Points**

- Supply Chain Storm Manager (SC-1)
- Regional ED Storm coordinator Manager
- Warehouse Coordinator (SC-2)

- Obtain names of employees assigned from the S&L Teams who will be supporting materials activities at Staging and Logistics site and/or Regional Storerooms.
- Determine staffing levels for potential Staging sites
- Participate on ED storm calls
- Coordinate with personnel to assure they have adequate time to prepare their homes for the storm

**One Day (24 hours) prior to the anticipated arrival of a storm:**

- Coordinate with personnel to assure they have adequate time to prepare their homes for the storm.
- Participate on ED storm calls

**After Major Storm**

- Replenish storm materials kits while storm account is still open
- Participate on ED storm calls

**SC- 3A Storeroom Storekeeper**

**Attachment W- Tree Ground Acquisition Process**

**Job Function**

This position serves as the materials expert and point of contact for obtaining materials and supplies as needed or requested for the Regional Storeroom.

**Job Duties**

This position will:

- Create material requests into Passport for Regional Storeroom and Staging Sites
- Receive and put-away material
- Distribute and issue all materials to company and contractor personnel
- Communicate need and coordinate delivery of poles based on storm impact
- Plan transformer deliveries per storm impact and need
- Coordinate local material recovery effort

**Key Interface Points**

- Field Operations Coordinator (SC-3)
- Company and contractor personnel
- Warehouse Coordinator (SC-2)
- Truck/Tractor Operator (SC-2B)
- Administrative Support (SC-5)
- Storeroom Assistant Storekeepers (SC-3A1)
- Staging Site Storekeepers (SC-3B)

**SC- 3B Staging Site Storekeeper**

(Attachment C - Staging Support – to be updated 48 hours prior to the storm)

**Job Function**

This position serves as the materials expert and single point of contact for obtaining materials and supplies as needed or requested by staging site team leader or designee.

(Attachment K - Field Materials Staging Template)

(Attachment L- Staging & Logistics Kit List)

(Attachment N - Storm Materials Kit List)

**Closing of Staging Site after Storm**

(Attachment G - Materials Pickup & Return Procedures for Staging Site Operations)

**Job Duties**

This position will:

- Lay out / set up material at staging site
- Determine the most efficient storage layout for materials in order to minimize traffic congestion and confusion
- Issue all materials and equipment from the Staging & Logistics kits
- Monitor and issue all materials from the S&L kits to site personnel
- Coordinate need and delivery of poles based on storm impact
- Plan transformer deliveries per storm impact and need
- Monitor material usage and place replenishment orders for all materials and equipment
- Order, receive, separate and distribute material
- Serve as a point of contact for procuring materials, equipment and supplies as needed
- Prepare excess, salvage and scrap materials for return to Warehouse or local operations center
- Record all materials and equipment used in the Staging and Logistics kit on the form provided in the Storm Response Kit
- Responsible for ensuring all materials and equipment have been removed from the staging site prior to departure.
- Work with Field Coordinator to negotiate time to remove material
- Return the Storm Response Kit to Central Warehouse

**Key Interface Points**

- Staging Site Team Leader
- Field Operations Coordinator (SC-3)
- Company and contractor personnel
- Warehouse Coordinator (SC-2A)
- Truck/Tractor Operator (SC-2B)
- Administrative Support (SC-5)
- Storeroom Storekeepers (SC-3A)
- Staging Site Material Handlers (SC-3B1)

**Before Storm Landfall**

**Four days (96 hours) prior to the anticipated arrival of a storm:**

- Review storm stock

**Key Interface Points**

- Warehouse Coordinator (SC-2)
- Local food and lodging establishments
- Site personnel
- Administrative Support (SC-5)
- Financial Support (SS-2)

**Before Storm Season**

Prior to storm season, the state of readiness for the Materials & Services Storm Team is a critical component for a successful restoration effort. To assist the Logistics Coordinator in verifying the level of readiness, the following checklist should be used:

- Develop a written agreement with local vendors to provide meals/lodging as needed during storm restoration.
- Ensure storm packets are assembled and current for field use in the event of a storm.

**Before Storm Landfall****Five Days (120 hours) prior to the anticipated arrival of a storm:**

- Arrange to have contractor deliver freezer unit and bagged ice for storm support
- Arrange for Facilities to have on-site generator tested, fueled and maintained
- Begin preparing Storm Center for occupants
- Arrange through Contracts to have vendor begin providing 2 days supply of snacks, water and drinks at the Central Repair Shop
- Communicate need for fuel to Fleet for vehicles (Diesel and Unleaded)
- Review the transformer backlog report.
- Develop an action plan for repairing most commonly used transformers.

**Three Days (72 hours) prior to the anticipated arrival of a storm:**

- Coordinate with "Suburban" propane to arrange for extra fuel and tanks for propane forklifts and set up daily deliveries.
- Coordinate with "Progress Rail Services" and put on notice of the need to service up to 16 staging sites.
- Coordinate with "Corporate Contracting" to secure additional order pickers, arrange for on-site food catering needs and assure that drinks, water and snacks are continuously provided for warehousing personnel needs during storm restoration activities.
- Coordinate with "Fleet Services" for rental vehicles to be delivered to Wildwood.
- Coordinate with "Fleet Services" for on-site fueling of gasoline and diesel.
- Coordinate with "Facilities" to test power supply and fuel for generator at Warehouse and to arrange for additional janitorial services as needed.
- Contact City of Wildwood to arrange continuous pumping of sewage lift station.
- Coordinate with "IT&T" to procure cellular phones, radios, laptop or desktop work stations and additional fax machines if requested by Supply Chain Coordinator.
- Coordinate with "Security" to arrange for 24/7 guard service at Wildwood and for the Sumter County Sheriff's Department to provide escorts to transports onto US 301 as requested by the Storm Center Coordinator.
- Coordinate with "Heavy Hauling" for additional lightning towers, lull lifts, site crane, Tractors and Trailers for company employee use.
- Coordinate with "Corporate Travel-Storm" to procure hotel arrangements for site personnel requiring hotel rooms.
- Coordinate with "Safety" to have Safety Client Specialist assigned to the Wildwood site for the duration of storm restoration activities
- Maintains control and logs users of keys for storm kits
- Maintains control and logs users of E-pass units
- Maintains control and logs users of Cellular Telephones
- Maintains control and logs users of rental vehicles
- Verify storm cards have been activated

**Before Storm Landfall**

- **Five days (120 hours) prior to the anticipated arrival of a storm:**
  - Set up call for M&S Management Team for later in evening
- **Four days (96 hours) prior to the anticipated arrival of a storm**
  - Set up call for M&S Management Team for later in evening

**Three days (72 hours) prior to the anticipated arrival of a storm:**

- Print the Central Warehouse materials list. Sort by bin location, part number and description. (1 copy for Warehouse Coordinator, 20 copies Storm Packets)
- Download and place copies on USB flash drive of Warehouse Materials List reports by bin location, part number and description
- Ensure storm packets are complete for field use. Add updated materials list to storm packets
- Set up call for M&S Management Team for later in evening

**After Major Storm**

- Account for all communication, other key equipment and rental vehicles/keys
- Inventory storm packets and replenish missing items

**SC- 6 RSVP Coordinator** (Attachment V – RSVP Coordinator)**Job Function**

This position is responsible for keeping the Supply Chain portion of the RSVP tool current. In addition, this position will support storm response by updating the RSVP tool to accurately reflect the Supply Chain resource mobilization plan.

**Job Description**

This position will:

- Keep the RSVP tool updated as employees transfer in and out of the Supply Chain storm organization
- Act as the first point of contact for Supply Chain employees regarding RSVP questions or concerns
- Assist employees when signing up for their storm role
- Participate in pre-storm season planning

**Key Interface Points**

- Supply Chain Storm Manager (SC-1)
- System RSVP Coordinator

**Before Storm Season**

- Ensure that the Supply Chain RSVP tool accurately reflects roles for all employees in the organization

**Before Storm Landfall****Four days (96 hours) prior to the anticipated arrival of a storm**

- Begin identifying Supply Chain employees availability for storm duty and input data into RSVP tool

**Three days (72 hours) prior to the anticipated arrival of a storm:**

- Complete employee availability input into the RSVP tool and begin activation of employees

**SS-2 Financial Support** (Attachment H - Warehouse Administrative/Financial Support)**Job Function**

This position serves as the single point of contact for financial storm related procedures for the Materials & Services Unit.

**Job Description**

This position will:

- Ensure financial procedures for storms are in place and understood by managers prior to storm season
- Provide documentation and training on the proper use of storm cards to managers so that they can communicate this information to storm teams
- Activate storm cards in a timely manner
- Ensure all storm receipts are collected and reconciled in a timely manner
- Ensure storm projects are activated and reflected in the appropriate time entry systems as communicated by Accounting
- Act as a point of contact for financial questions regarding storm charges (airfares, lodging, meals, office supplies, miscellaneous personal items, etc.) for Corporate Services Department managers, supervisors, and employees
- Complete the spreadsheet for daily storm expenses and forward to appropriate Energy Delivery personnel

**Key Interface Points**

- Warehouse Coordinator (SC-2)
- Logistics Coordinator (SC-4)
- Accounting
- Corporate Services Department managers and supervisors

**SS-3 Purchasing Support**

(Attachment B - M&S Florida – Wildwood Site Procurement and Corporate Support Contact List)

(Attachment S – Purchasing Supplier Contact Information)

(Attachment Q – Corporate Contracting)

(Attachment O- Miscellaneous Contractor / Supplier Listing)

**Job Function**

This position ensures that T&D materials and equipment are available to supply all construction personnel with sufficient materials to complete storm restoration efforts.

**Job Description**

This position will:

- Review inventory levels of T&D materials listed on the Storm Material Report
- Initiate orders to meet initial demands for potential staging areas
- Notify local suppliers that the Storm Plan is in effect and to be prepared for increased demand
- Contact the Passport team to turn off the "auto reorder" function for all storm related materials
- Keep the Supply Chain Storm Coordinator informed of any shortages or potential stock-outs
- Activate the MEMS network to secure materials from other utilities as needed
- Provide updates to Stock Out Coordinator on status of delivery schedule
- Work with Standards to see if any substitution of material that is stocked out can be made
- Coordinate with key vendors for onsite support



**For the following Supplementary Information**

Visit Progress Net > Supply Chain Department > Materials Management > Storm Procedures OR

Visit the following link: [M&S FL Storm Supplementary Information](#)

**Supplementary Information:**

Attachment A	M&S Florida Storm Contact List
Attachment B	M&S Florida Wildwood Site Procurement & Corp. Support Contacts
Attachment C	M&S Florida Staging Support
Attachment D	M&S Florida Wildwood Site Lodging and Meals Contact List
Attachment E	M&S Florida Materials Receiving Team
Attachment F	M&S Florida Materials Pulling Team
Attachment G	M&S Florida Materials Pick-up and Return Procedures
Attachment H	M&S Florida Warehouse Admin-Financial Support Contact list
Attachment I	M&S Florida Technical Support Personnel
Attachment J	M&S Florida Transport Truck Operators
Attachment K	M&S Florida Field Materials Staging Template
Attachment L	M&S Florida Staging & Logistics Kit List
Attachment M	M&S Florida Storm Staging Location Process Flow
Attachment N	M&S Florida Storm Material Kit List
Attachment O	M&S Florida Miscellaneous Contractor / Supplier Listing
Attachment P	M&S Florida Storm Activities by Day
Attachment Q	M&S Florida Corporate Contracting
Attachment R	M&S Florida Engineering Standards Team
Attachment S	Purchasing Supplier Contact Information
Attachment T	HR Storm Communication - Hurricane Season 2010
Attachment U	Manual MR Process
Attachment W	Tree Ground Acquisition Process

# Safety

Document number

EMG-EDGF-00058

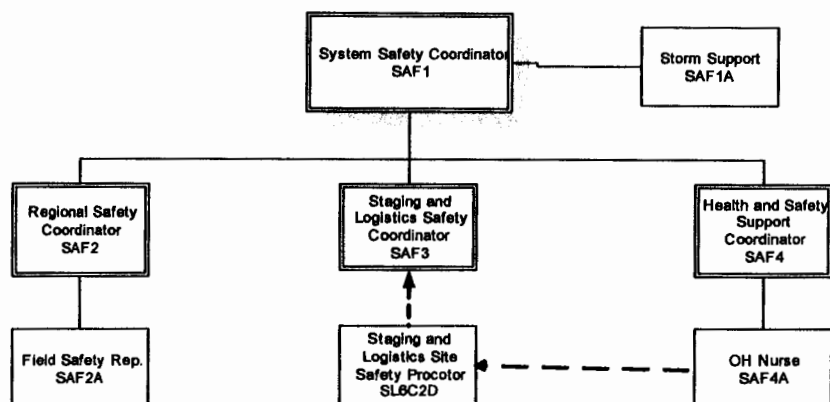
Applies to: Energy Delivery – Florida

Keywords: emergency; distribution system storm operational plan

## Mission

To provide safety support during storm restoration to Progress Energy employees, contractors and the general public, helping ensure a safe restoration process.

## Organization Charts



## Sub-processes

The Safety functional process includes the following sub-process:

- Safety - Major Storm Support

## Major Storm Support

This sub-process identifies roles and responsibilities in support of major storm restoration activities.

The following personnel are engaged as lead positions for storm restoration:

- Safety Storm Coordinator (SAF1)
- Regional Safety Coordinator (SAF2)
- Staging and Logistics Safety Coordinator (SAF3)
- Health and Safety Support Coordinator (SAF4)

**Job Description**

**Responsibilities to include:**

- Participate in the system storm conference calls and provide safety messages
- Coordinate the system storm team
- Implement and manage the system safety storm plan
- Establish safety support assignments
- Monitor the restoration efforts and adjust safety support as needed
- Verify system safety performance is current throughout the restoration effort
- Update all functional areas of Progress Energy Delivery of any safety issues
- Ensure transportation and material needs are met for the Safety Storm Organization
- Ensure Daily Safety Messages are provided to the various storm organizations for use in safety briefings
- Sponsor final storm safety performance report

**Key Interface Points**

- Distribution System Storm Coordinator (DSSC1)
- Region Service Manager (REG1)
- Regional Safety Coordinator (SAF2)
- Staging and Logistics Coordinator (SAF3)
- Health and Safety Support Coordinator (SAF4)

**Checklist of Actions**

**Before Major Storm**

- Establish safety support needs and fill need with appropriate personnel
- Facilitate Safety Storm Organization preparedness meeting
  - Verify storm organization has updated supplies and PPE
  - Verify prepared safety messages are current
  - Verify safety orientations are available for mustering sites
  - Verify emergency care locations are identified and communicated
- Engage System Safety Coordinator peers to identify additional safety resources
- Receive list of important contacts and contact information

**During Major Storm**

- Prepare daily safety message for system conference calls
- Stay engaged with System Storm Organization Leads
- Monitor and communicate system safety performance
- Manage the Safety Storm Organization for performance excellence
- Coordinate safety related root cause meetings/investigations

**After Major Storm**

- Verify safety performance record is accurate
- Verify safety related issues have been resolved or are being followed up
- Gather lessons learned data from the safety storm organization and forward to the Distribution System Storm Coordinator Assistant (DSSC1A)

**Engaged in the Following Sub-process**

- Safety - Major Storm Support

**During Major Storm**

- Support any local safety orientations for off system line and tree resources
- Participate in regional conference calls
- Maintain field presence and note safety related positives and issues
- Support Field Safety Representatives
- Stay engaged with the D.O.M's
- Capture all regional safety related near misses, occupational illnesses, personal injuries and vehicle accidents
  - Communicate timely safety related issues to the Regional Storm Coordinator (REG1)
  - Report to the System Safety Coordinator (SAF1)
  - Update Safety Storm Organization on daily conference calls
- Perform safety trending and support the development of a action plan for improved safety performance
- Verify safety forms are being filled out and events are being reported per corporate procedures
- Host OSHA field agents if they arrive on PE property

**After Major Storm**

- Verify final regional safety performance and report to the System Safety Coordinator
- Capture lessons learned from Field Safety Representatives and customers - forward to System Safety Coordinator
- Develop communication for use in updating regional customers on safety performance during storm restoration efforts
- Follow up on safety related incidents
- Turn in supplied vehicle and any receipts associated with storm

**Battlefield Promotion Success Factors**

- Stay engaged with Regional and Operations Center Storm management team
- Maintain a high field presence

**Engaged in the Following Sub-process**

- Safety - Major Storm Support

**SAF 3: Staging and Logistics Safety Coordinator****Job Function**

This position will typically be filled by a Senior Occupational and Health Specialist. This position will be the single point of contact for the various safety issues/concerns related to the System Staging and Logistics Storm Organization. The position will be responsible for coordinating the allocation of safety resources for identified staging sites and large mustering sites.

**Job Description**

Responsibilities to include:

- The allocation of S&L Site Safety Proctors to the various staging sites and large mustering sites.
- Providing prepared safety messages to S&L Safety Proctors
- Updating S&L Site Safety Proctors on safety related issues
- Anticipate S&L safety needs and respond as required
- Support the needs of the S&L Safety Proctors to ensure their success
- Work with Corporate Security and Site Safety Proctors to ensure staging sites are properly organized and manned:
  - Traffic patterns ensure safe pedestrian and vehicle flow
  - Loading areas are separated from overnight parking areas, catering tents and major traffic flow
  - Where required, traffic cones and barricade tape utilized to direct traffic, define functional areas and secure vehicles and equipment
  - Signage (dual language) utilized to identify important locations
- Perform site inspections
- Stay engaged with the System S&L Coordinator

**Job Description****Responsibilities include:**

- Coordinate development of Health and Wellness and provide updates to the safety storm coordinators in support of safety briefings
- Respond to developing health and wellness issues identified from the System Safety Storm Organization
- Arrange for and assign occupational health nurses and other health professionals to identified sites
- Coordinate vaccinations and other health related precautions

**Key Interface Points**

- System Safety Coordinator (SAF1)
- S&L Safety Coordinator (SAF3)
- Occupational Health Nurse (SAF4A)

**Checklist of Actions****Before Major Storm**

- Verify occupational health nurses contact list is current
- Contact occupational health nurses (SAF4A) and advise of possible storm duty requirements
- Engage with the System Safety Coordinator (SAF1) and the S&L Safety Coordinator (SAF3) for site needs
- Identify and arrange any travel needs required by the occupational health nurse/professional support
- Establish occupational health nurse/professional support cost tracking tool, if utilized
- Verify occupational health prepared messages are current – update as needed

**During Major Storm**

- Provide occupational health updates to the system safety storm organization for briefings
- Monitor effectiveness of provided OH Nurse/professionals at designated sites
- Track associated costs and update System Safety Coordinator (SAF1)
- Coordinate OH nurse/professionals (SAF4A) to ensure their effectiveness
- Update System Safety Storm organization on occupational health issues and performance
- Re-assign occupational health nurse/professionals (SAF4A) as sites open and close, as needed

**After Major Storm**

- Release all occupational health nurse/professionals
- Verify final travel needs are met and assigned vehicles are released
- Develop health care support cost report and submit to the System Safety Coordinator (SAF1)
- Develop lessons learned document and forward to the System Safety Coordinator (SAF1)

**Engaged in the Following Sub-process**

- Safety - Major Storm Support

**SAF 2A: Field Safety Representative****Job Function**

This position will normally be filled by existing Occupational Health and Safety Specialists. However, other qualified personnel may be utilized when approved by the System Safety Coordinator (SAF1). This position will provide direct field safety support to those personnel assigned restoration duties.

**Job Description**

This position will require the individual to perform daily safety audits, inspections and safety briefings. In addition, this position will require the individual to develop and communicate daily updates on the System and Operational Center safety performance.

**After Major Storm**

- Verify all safety related issues have been reported to the Regional Safety Coordinator (SAF2)
- Verify all incidents have been reported and documented per the corporate procedures
- Communicate with the operation centers personnel on their performance
- Turn in supplied vehicle and any receipts associated with storm
- Identify lessons learned and forward to the Regional Safety Coordinator (SAF2)

**Battlefield Promotion Success Factors**

- Stay engaged with Operations Center Storm management team
- Maintain a high field presence

**SAF 4A: Occupational Health Nurse/Professionals**

**Job Function**

This position will normally be filled by offsite contractor. However, if the need arises, it can be filled by PE OH staff. This position will provide direct field nursing support to those personnel assigned restoration duties.

**Job Description**

This position will require the individual to perform nursing activities as within the scope of the individual license. In addition, this position will require the individual to communicate daily to the Health and Safety Support Coordinator.

**Key Interface Points**

- Health & Safety Support Coordinator
- Field Safety Representatives

**Checklist of Actions**

**Before Major Storm**

- Ensure adequate supplies are available

**During Major Storm**

- Ensure local clinics, medical facilities are located upon arrival at site
- Provide daily updates to H&S Support Coordinator prior to daily briefings
- Work with Field Safety Representatives (OHSA recordable, etc.)
- Ensure logs are current for all injuries and illnesses.

**After Major Storm**

- Process all paperwork to H&S Support Coordinator for final disposition
- Provide lessons learned to H&S Support Coordinator

**Systems**

- To be included in a future revision of this document.

# Human Resources

Document number

**EMG-EDGF-00059**

Applies to: Energy Delivery – Florida

Keywords: emergency; distribution system storm operational plan

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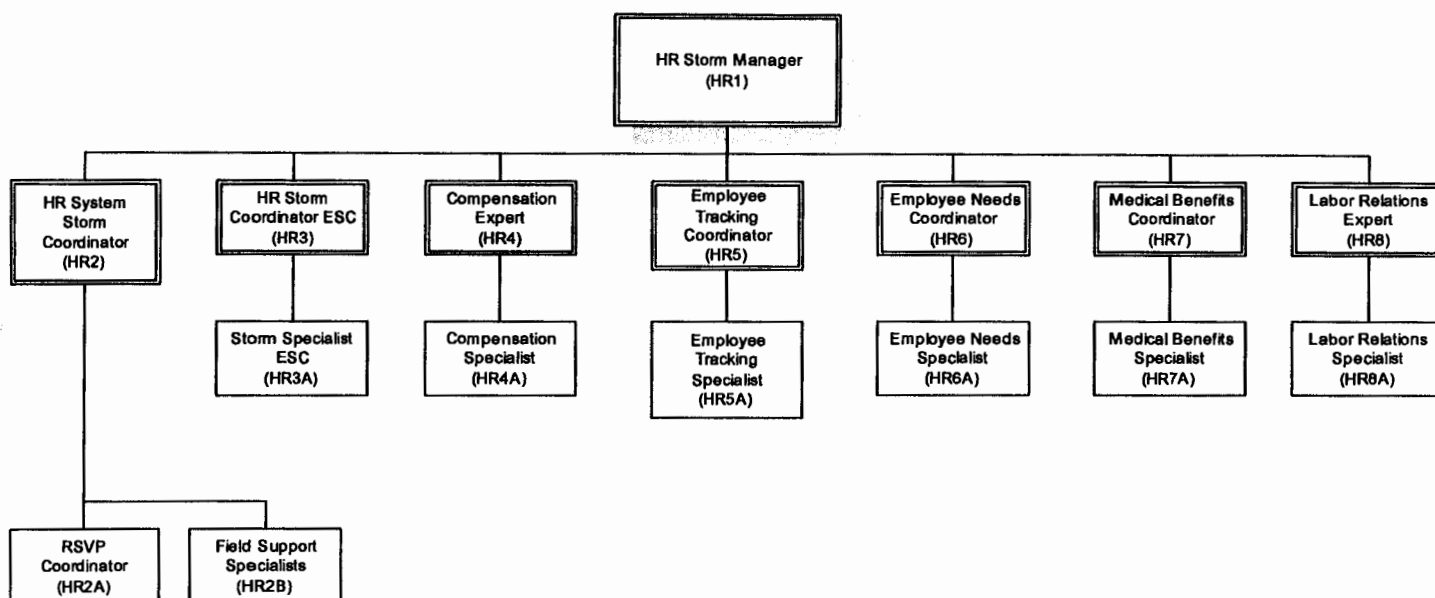
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### HR Storm Team Org Chart



**Communication Plan**

- **Intranet and Storm Center Web site:** Responsible for working with Public Relations section to determine need for and timing of activating the storm site. Once activated, Employee Communications is responsible for managing and updating the intranet and Storm Center Web site.
- **Progress Daily articles:** A series of Progress Daily articles will be published in advance of the storm encouraging employees to prepare. The articles will include: evacuation information, storm preparation tips, links to evacuation shelter locations, and the importance of direct deposit during storms. Additional information will be communicated as needed.
- **InfoBulletins:** Responsible for preparing all InfoBulletins as needed.
- **RSVP InfoBulletin:** Issue employee mobilization InfoBulletin if necessary. If the system storm coordinator determines that it is necessary to mobilize employees into storm jobs, CCD will release an InfoBulletin. It is up to the system coordinator to obtain all administrative approval required for mobilizing employees. Employee Communications should work with the Business Unit Support section on this document.
- **Employee photos/stories:** Work with Brand and Marketing Communications to ensure we have arrangements for photographs and first-person accounts of employee contributions to the restoration effort.
- **Storm duty:** At least one Employee Communications representative will be assigned storm duty for each shift. Responsibilities during duty will include Web site management, Progress Daily and InfoBulletins.

## **Job Descriptions**

### **HR2: HR System Storm Coordinator**

#### **Job Function**

The HR System Storm Coordinator is accountable for providing system level HR support for continuity. Accountabilities include policy interpretation and communication, employee assistance, human resources and emergency support.

#### **Job Description**

- Provide back-up support to HR Storm Manager.
- Facilitates HR storm meetings/calls with HR Storm Team (include Legal, HR Leadership team, etc.)
- Participates in system storm meetings/calls as needed.
- Works with HR Storm Manager to develop and oversee storm checklists.
- Works with HR Storm Manager and Corporate Communications to develop content for HR storm-specific communications.  
For example:
  - Preparedness & readiness expectations for all employees
  - Compensation guidance
  - Employee resource information
  - Guidance re: storm specific issues
- Ensure the availability of EAP support information
- Works closely with HR Coordinators to insure roles are carried out.
- Serves as point person pre, during and after storms to disseminate information and respond to questions from HR Coordinators
- Compile and maintain an HR Issues Log at the system level.

#### **Key Interface Points**

System Storm Team

HR Storm Team

Corporate Services (Real Estate)

Corporate Communications

Business Services

#### **Training Requirements**

This role is filled by experienced HR Managers or HR Specialists and therefore reserved for those with human resources generalist experience. As such, there are no training requirements for performing this role during storms.

## **Job Descriptions**

### **HR2B: Field Support Specialists**

#### **Job Function**

The HR Storm Specialist: Field Support, is accountable for providing regional and/or local HR support during major storms. Accountabilities include policy interpretation and communication, employee assistance, human resources and emergency support.

#### **Job Description**

- Participates in HR Storm meetings/calls
- Provides back-up support to HR System Storm Coordinator and HR Storm Manager
- Direct employees to website or other appropriate forums for storm specific policies
- Respond to questions requiring policy interpretation
- Compile and maintain HR issues log for respective Region and report issues to HR Storm Manager or HR System Storm Coordinator, whichever is applicable

#### **Key Interface Points**

- HR Storm Manager (HR1)
- HR System Storm Coordinator (HR2)

#### **Training Requirements**

This role is filled by experienced HR Managers or HR Specialists and therefore reserved for those with human resources generalist experience. As such, there are no training requirements for performing this role during storms.

## **Job Descriptions**

### **HR3A: HR Storm Specialist: ESC**

#### **Job Function**

The HR Storm Specialist: ESC, provides back up support to the HR Storm Coordinator: ESC, and serves to remedy gaps and satisfy unassigned needs.

#### **Job Description**

- Attends HR storm meetings as necessary.
- Answers calls from employees, provides guidance, directions and otherwise responds accordingly.
- Other duties outlined by the HR Storm Coordinator: ESC, on an as needed basis.

#### **Key Interface Points**

- ESC Storm Coordinator (HR4)
- HR System Storm Coordinator (HR2)

#### **Training Requirements**

Training and information will be provided by the ESC Coordinator and the HR System Storm Coordinator.

## **Job Descriptions**

### **HR4A: Compensation Specialist**

#### **Job Function**

The HR Storm Specialist provides back up support to the Coordinator: Compensation, and serves to remedy gaps and satisfy unassigned needs.

#### **Job Description**

Other duties outlined by the HR Storm Coordinator, Compensation, on an as needed basis.

#### **Key Interface Points**

- HR Compensation Coordinator (HR4)
- HR Storm System Coordinator (HR2)

#### **Training Requirements**

Training and information will be provided by the Compensation Specialist and the HR System Storm Coordinator.

## **Job Descriptions**

### **HR 5A: Employee Tracking Specialist**

**(This role will only be activated for catastrophic events)**

#### **Job Function**

The Employee Tracking Specialist provides back up support to the Employee Tracking Coordinator, and serves to remedy gaps and satisfy unassigned needs.

#### **Job Description**

Other duties outlined by the Employee Tracking Coordinator on an as needed basis.

#### **Key Interface Points**

- Employee Tracking Coordinator (HR5)

#### **Training Requirements**

Training and information will be provided by the Employee Tracking Coordinator and the HR System Storm Coordinator.



## **Job Descriptions**

### **HR6A: Employee Needs Specialist**

#### **Job Function**

The Employee Needs Specialist provides back up support to the Employee Needs Coordinator and serves to remedy gaps and satisfy unassigned needs.

#### **Job Description**

Other duties outlined by the Employee Needs Coordinator, on an as needed basis.

#### **Key Interface Points**

- Employee Needs Coordinator (HR6)
- HR System Storm Coordinator (HR2)

#### **Training Requirements**

Training and information will be provided by the Employee Needs Coordinator and the HR System Storm Coordinator.

## **Job Descriptions**

### **HR7A: Medical Benefits Specialist:**

#### **Job Function**

The Medical Benefits Specialist: provides back up support to the Medical Benefits Coordinator and serves to remedy gaps and satisfy unassigned needs.

#### **Job Description**

Other duties outlined by the Medical Benefits Coordinator on an as needed basis.

#### **Key Interface Points**

- Medical Benefits Coordinator (HR7)
- HR Storm System Coordinator (HR2)

#### **Training Requirements**

Training and information to be provided by the Health and Welfare Coordinator and the HR System Storm Coordinator.

## **Job Descriptions**

### **HR8A: Labor Relations Specialist**

#### **Job Function**

The Labor Relations Specialist provides back up support to the Labor Relations Coordinator and serves to remedy gaps and satisfy unassigned needs.

#### **Job Description**

Other duties outlined by the Labor Relations Coordinator on an as needed basis.

#### **Key Interface Points**

- Labor Relations Coordinator (HR8)
- HR Storm System Specialist (HR2)

#### **Training Requirements**

Training and information will be provided by the Labor Relations Coordinator and the HR System Storm Coordinator.

Document title

# Appendix A: Key Performance Indicators

Document number

**EMG-EDGF-00060**

Applies to: Energy Delivery – Florida

Keywords: emergency; distribution system storm operational plan

The following section contains a summary of the key performance indicators (KPIs) for Progress Energy storm restoration efforts. Each functional process is responsible for meeting or exceeding their assigned Customer, Operational, and/or Financial KPIs.

Safety is the shared responsibility of all Progress Energy employees. The safety of fellow employees and the general public is the most important consideration when the DSSOP is in effect—just as it is under normal operating conditions. Following are guidelines for meeting the core safety KPIs at Progress Energy: zero controllable vehicle accidents (CVAs) and zero injuries.

- Under no circumstance will safety be sacrificed for speed.
- Communication in the form of job briefings is the cornerstone of all work to be performed. It is crucial to clearly communicate unique operating procedures and/or distribution system characteristics to outside personnel.
- No employee shall attempt restoration activity or set up staging areas during weather conditions that are deemed unsafe.
- Substation/Zone Coordinators (OPS2C-1) are responsible for electrical safety tagging within their assigned zones.
- Every effort shall be made to notify the general public of potential hazards. Work at night shall be well planned and organized.

## Key Performance Indicators for Distribution System Storm Center

Category	KPI
<b>Customer</b>	o Number of key customers left to restore
<b>Operational</b>	o Estimated time of restoration (ETR)
	o Line personnel/customers without service
	o Number of customers restored per day
<b>Financial</b>	o Daily costs of operations/ customers restored
<b>Safety</b>	o Zero controllable vehicle accidents (CVAs)
	o Zero injuries

**Key Performance Indicators for Damage Assessment**

Category	KPI
<b>Customer</b>	<ul style="list-style-type: none"> <li>o Number of key customers left to restore</li> </ul>
<b>Operational</b>	<ul style="list-style-type: none"> <li>o Completion of statistical assessment data entry within 10 hours (end of storm or first light)</li> <li>o Establish system ETR in online tool by end of first day</li> <li>o Completion of pole-to-pole data entry by end of 3rd day</li> <li>o Line personnel/customers without service</li> <li>o Customers restored per day</li> <li>o Estimated time of restoration (ETR)</li> </ul>
<b>Financial</b>	<ul style="list-style-type: none"> <li>o Forecast ETR to actual ETR</li> <li>o Daily costs of operations/ customers restored</li> </ul>
<b>Safety</b>	<ul style="list-style-type: none"> <li>o Zero controllable vehicle accidents (CVAs)</li> <li>o Zero injuries</li> </ul>

**Key Performance Indicators for Community Relations**

Category	KPI
<b>Safety</b>	<ul style="list-style-type: none"> <li>o Zero controllable vehicle accidents (CVAs)</li> <li>o Zero injuries</li> </ul>

**Key Performance Indicators for Resource Management**

Category	KPI
<b>Operational</b>	<ul style="list-style-type: none"> <li>o % of support resource requests filled</li> <li>o Resource Link Tool Input complete by prescribed daily deadlines</li> <li>o Crew ready to work. % (compare amount of resources you forecast to be on property ready to work, versus, how many resources ultimately were available)</li> <li>o Line personnel/customers without service</li> <li>o Customers restored per day</li> </ul>
<b>Financial</b>	<ul style="list-style-type: none"> <li>o Daily costs of operations/ customers restored</li> </ul>
<b>Safety</b>	<ul style="list-style-type: none"> <li>o Zero controllable vehicle accidents (CVAs)</li> <li>o Zero injuries</li> </ul>

**Key Performance Indicators for Customer and Marketing Services**

<b>Category</b>	<b>KPI</b>
<b>Customer</b>	<ul style="list-style-type: none"> <li>o Total calls received, by region</li> <li>o Calls processed through technology</li> <li>o Total e-mails</li> <li>o Abandon rate: 911 line</li> <li>o Abandon rate: General line</li> <li>o Overall service level</li> <li>o Number of customer complaints (FPSC and executive)</li> <li>o Number of customer compliments</li> </ul>
<b>Operational</b>	<ul style="list-style-type: none"> <li>o Total calls received, by region</li> <li>o Calls processed through technology</li> <li>o Total e-mails</li> <li>o Number of meters estimated</li> </ul>
<b>Financial</b>	<ul style="list-style-type: none"> <li>o Number and dollar value of late fees waived</li> <li>o Number of accounts deferred from cut for non-payment</li> </ul>
<b>Safety</b>	<ul style="list-style-type: none"> <li>o Zero controllable vehicle accidents (CVAs)</li> <li>o Zero injuries</li> </ul>

**Key Performance Indicators for Support Services**

<b>Category</b>	<b>KPI</b>
<b>Customer</b>	<ul style="list-style-type: none"> <li>o On-time provision of vehicles for customer use</li> <li>o Zero customers inconvenienced by vehicle breakdowns</li> </ul>
<b>Operational</b>	<ul style="list-style-type: none"> <li>o Vehicle availability for crew use</li> <li>o Fuel provided within time-frame specified in agreements</li> <li>o Quantity of sites providing fuel as specified in agreements</li> </ul>
<b>Financial</b>	<ul style="list-style-type: none"> <li>o Daily costs of operations/ customers restored</li> </ul>
<b>Safety</b>	<ul style="list-style-type: none"> <li>o Zero controllable vehicle accidents (CVAs)</li> <li>o Zero injuries</li> </ul>

Document title

# Appendix C: System Matrix

Document number

EMG-EDGF-00062

Applies to: Energy Delivery – Florida

Keywords: emergency; distribution system storm operational plan

Systems	DSSC	S&L	CC	BO	DA	CR	DOC	RM	REG	OPS	C&MS	SS	SAF	HR
21st Century											✓			
Alarm 60							✓							
ARCOS							✓							
BAKER							✓							
Concur												✓		
Corporate Data Warehouse												✓		
CSS							✓				✓			
CTE												✓		
Damage Assessment online tool					✓									
Damage Assessment tool (new)												✓		
Damage Assessment tools				✓										
DSSOP												✓		
Elite Dispatch Radio Consoles							✓							
ETR online tool					✓									
FMS							✓							
G-Net							✓							
G-Net Viewer							✓							
Human Resources system				✓										
I/Dispatch							✓							
IPT											✓			
IPT Cruiser							✓							
LBS							✓							



Document title

# Appendix D: Abbreviations

Document number

**EMG-EDGF-00063**

Applies to: Energy Delivery – Florida

Keywords: emergency; distribution system storm operational plan

ACD: Automated Call Distribution

AIR: Assess, Isolate, and Restore

AIRD: Assess, Isolate, Restore, and Document

ARCOS: Automated Roster Callout System

CCD: Corporate Communications Department

CIG: Commercial, Industrial, and Government

CRI: Convergent Resources, Inc.

CSC: Customer Service Center

CSS: Customer Service System

CTE: Corporate Time Entry

CVA: Controllable vehicle accident

DA: Damage Assessment

DCC: Distribution Contact Center

DIS: Distribution Information System

DOM: Distribution Operation Manager (Operations Center Coordinator (OPS1))

DSSC: Distribution System Storm Center

DSSOP: Distribution System Storm Operational Plan

EOC: Emergency Operations Center

ETR: Estimated time of restoration

F/S: Final Sweep

GAAP: Generally Accepted Accounting Principles

GIS: Geographic Information System

GPS: Global Positioning System

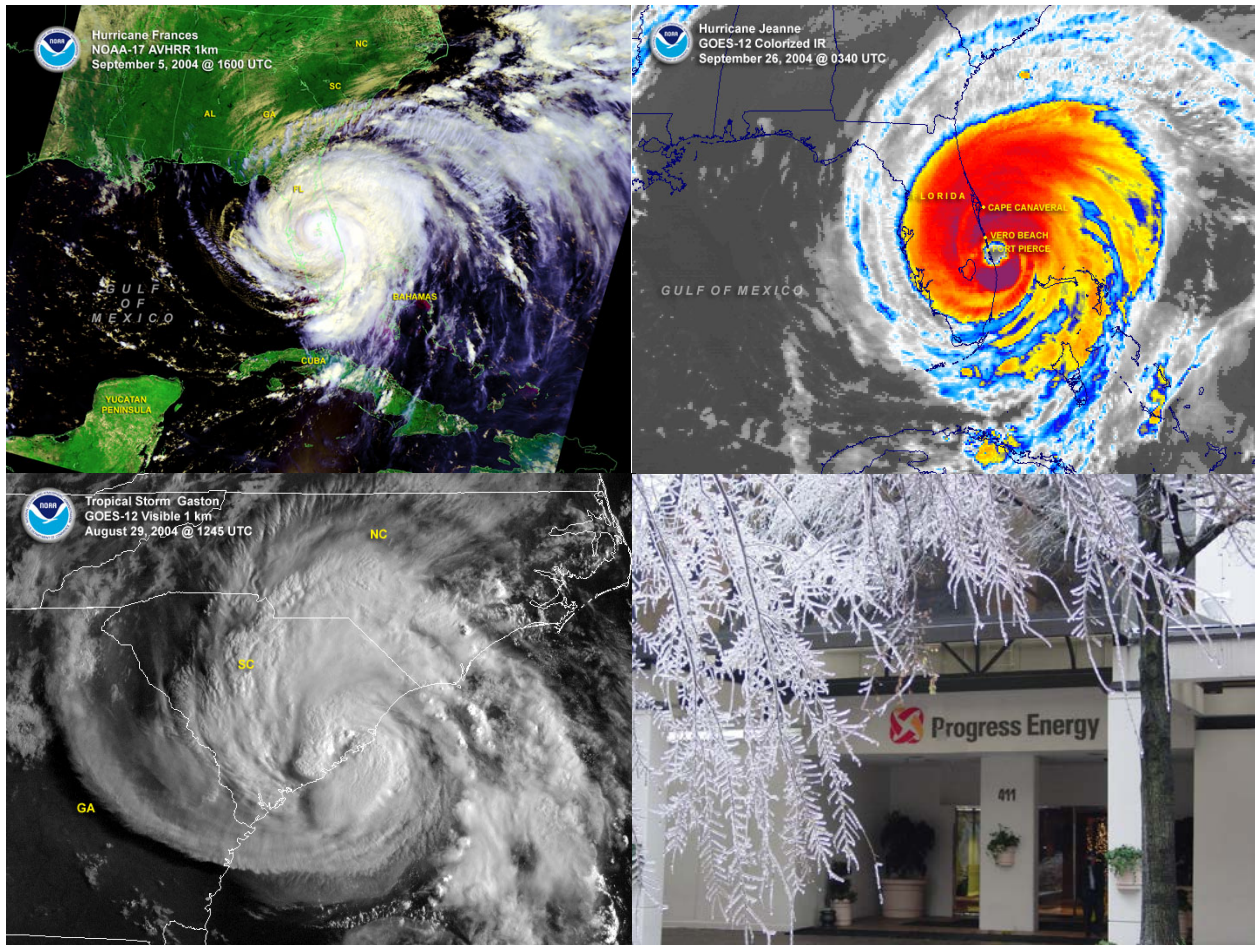
# **ATTACHEMENT Z**



# Progress Energy

## Transmission

## Storm Plan



*Last Revision Date: 4/4/2013*

# Transmission Planning & Operations Storm Plan Florida

Document number TRM-STRM-2010

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**TRANSMISSION PLANNING AND OPERATIONS - FLORIDA  
STORM PLAN**

**1.0 Purpose**

The Transmission Storm Plan, in keeping with the corporate guideline, has been developed for use when either catastrophic damage to transmission facilities has occurred and the repair is beyond the capability of the local Transmission Maintenance Area personnel, or the National Weather Service issues a wide area severe weather warning (e.g., hurricane or ice storm expected to hit the Progress Energy service area).

**2.0 Storm/Emergency Classification**

The Transmission Storm response is controlled and managed by multiple Storm Centers. The Storm Centers and their associated roles and responsibilities are listed below. The storm/emergency classifications are also listed below

**2.1 Level I - Command and Control.**

Storms or events that affect or could affect only one Transmission Maintenance Area with low to moderate damage. Restoration is normally accomplished by the affected area's resources without outside assistance

- Transmission Maintenance Area Storm Center is functioning (responsible for assessing needs, coordinating all assigned resources and restoration efforts within their respective areas)
- Transmission Maintenance Area is responsible for obtaining materials, major equipment, engineering support, general office support, fault locations and additional crews through normal methods (note: Transmission Maintenance Area may contact Logistics Center lead and request assistance)
- Transmission Storm Center is not manned, but Transmission Maintenance Area Coordinator and Transmission Storm Coordinator need to determine if updates on conference calls are needed to assist and facilitate mobilization decisions and resource needs.

**2.2 Level I Examples -**

- Anticipated large number of distribution breaker operations.
- Loss of offsite power at Nuclear Plant (see note 1).
- Event of High Interest to Public or Media (see note 1).
- Single Transmission Line Locked out.
- Single Transformer Failure that the Transmission Maintenance Area can handle with own resources.
- Single Regulator Failure that Transmission Maintenance Area can handle with own resources.

Note 1: May be elevated to Level II, depending on need as determined by affected Transmission Maintenance Area and Transmission Storm Center.



### **2.3 Level II- Command and Control.**

Storms or events with moderate damage affecting one or more Transmission Maintenance Area. Damage in the maintenance area may require the use of crews from other Transmission Maintenance Areas or Transmission Construction in order to be repaired in a timely manner.

- Transmission Maintenance Area Storm Centers are open (responsible for assessing needs, coordinating all assigned resources and restoration efforts within their respective areas).
- Logistics Center is open for engineering, materials, contracting, accounting, fault locations, General Office and scheduling support.
- Transmission Storm Center is not manned, but holds updates on conference calls to assist with restoration efforts and facilitate mobilization decisions. The Transmission Storm Center will also resolve conflicts for competing resources, materials and contractors.
- Transmission Storm Center will represent the Transmission Operations and Planning Department on Distribution System Storm Conference Calls.

### **2.4 Level II Examples -**

- Events that affect critical customers with sustained outage or that Transmission Maintenance Area cannot handle.
- Anticipated ice accumulation level of 3/8" to 1/2".
- Lockout of two transmission lines in the same area at the same time, which Transmission Maintenance Area cannot handle with regularly available resources.
- Lockout of two Subs at the same time in one Transmission Maintenance Area, which cannot be handled with regularly available resources.
- Event threatening Major Generation Availability.
- Loss of offsite power at Nuclear Plant (see note 1)
- Event of High Interest to Public or Media (see note 1).
- Event where out-of-Area (on-system) crews/resources are needed

Note 1: When elevated from Level I by affected Transmission Maintenance Area Manager and Transmission Storm Center.

### **2.5 Level III - Command and Control**

Storms or events causing damage to one or more Transmission Maintenance Area requiring the assistance of the Transmission Storm Center, Logistics Center, and Wholesale Customer Storm Center. Restoration efforts require the use of on-system contractors, possible off-system contractors, other utilities and personnel from other Transmission Maintenance Areas.

- Transmission Storm Center is open (responsible for coordinating inter-maintenance area efforts and serving as a liaison to Senior Management and Corporate Communications/media)
- Transmission Maintenance Area Storm Centers are open (responsible for assessing needs, coordinating all assigned resources and restoration efforts within their respective areas)
- Logistics Center is open for engineering, materials, contracting, accounting, fault locations, General Office and scheduling support.



- Wholesale Center is open to facilitate communications between Progress Energy and Wholesale Power Customers.

## **2.6 Level III Examples -**

- Conditions Significantly Threatening Reliability (System Stability) General Load Reduction & Restoration Status - PE level 4 condition Red or NERC EEA 3
- Potential for hurricane force winds over large area of Progress Energy System.
- Open when anticipated Major Storm is declared.
- Damage in excess of what on-system crews can handle.
- Event of significant Civil Disturbance that could cause significant power disruption
- Anticipated ice accumulation level of greater than ½”.

## **2.7 Level IV Command Control**

Storms or events producing extensive damage to the Transmission System, as well as to other Electric, Communications, and Commercial Services Infrastructure. Restoration efforts require management of large compliments of off-system crews (>100 off-system personnel), as well as extensive materials, logistics, and engineering support.

- Transmission Storm Center is open (responsible for coordinating inter-maintenance area efforts and serving as a liaison to Senior Management and Corporate Communications/media).
- Transmission Maintenance Area Storm Centers are open (responsible for assessing needs, coordinating all assigned resources and restoration efforts within their respective areas).
- Logistics Center is open for engineering, materials, contracting, accounting, fault locations, General Office and scheduling support.
- Wholesale Center is open to facilitate communications between Progress Energy and Wholesale Power Customers.

## **2.8 Level IV Examples -**

- Heavy Category III (or stronger) Hurricane and accompanying tornadic activity producing widespread structural damage to lines and substations.

## **3.0 Activation and Communication**

The individual Transmission Maintenance Area Storm Center leads shall be responsible for monitoring the storm/emergency situation and determining the storm/emergency classification level in order to activate the storm/emergency response for their area. The Transmission Storm Center shall also monitor the storm/emergency situation and has the responsibility for involving all Transmission Maintenance Area Storm Center Coordinators to determine the overall Transmission Storm/Emergency classification level and elevation. During system-wide events, such as ice storms and major damage events, the Transmission Storm Center shall have overall responsibility for communicating with the areas and determining the Storm/Emergency classification level.

To initiate a storm conference call, e-mails may be sent to the following addresses in the Global Address List, as required:

Carolinas – “TRM-Storm Call”

Florida - “FLTRM-Storm Call”

The Transmission Storm Center shall inform all Transmission Maintenance Area Storm Center leads and alternates of the storm/emergency classification level by direct communications. The Transmission Storm Center shall also inform the remainder of the General Office Transmission Operations and Planning Department of the classification level via email.

Once the storm/emergency classification level has been activated, the individual Transmission Maintenance Area Storm Center leads in the affected areas shall inform their respective staffs of the classification level via email and direct communications.

Storm Communications Diagram: [See Attachment 1](#)

**4.0 Transmission Florida Storm Center** - The primary location of the TOP-FL Storm Center is the Winter Garden Training Center.

**4.1 Storm Center Duties and Responsibilities**

- Monitor development of storm or emergency and determine appropriate level of response.
- Track and Report outage data and information for external (to the Department) communications.
- Serve as liaison to Senior management, Corporate Communications/Media, Legal, and Distribution Asset Management.

**4.2 Restoration Priority**

- With input from the ECC, the Storm Center determines the overall priority for the assignment of transmission resources, equipment, and materials for system restoration activities among multiple maintenance areas.
- Paralleling the priorities set for restoring critical electrical services are requirements for restoring communications links that facilitate the restoration of electric service. The Storm center, with input from IT&T, will give reasonable priority to electric facilities serving two way radio sites, PBX sites, fiber optics and microwave sites, as well as over head fiber optic cable which carries communications traffic for the company.
- Communicates restoration priorities to Logistics and the maintenance area storm centers.
- Enter outages and priorities into the Outage Tracking Tool (Carolinas – the ECC in Florida enters the outages).

**4.3 Transmission Storm Center Setup** - Setup and decommissioning of the Transmission Storm Center located in Winter Garden and Transmission Logistics Center located in Lake Mary is the responsibility of the Storm Setup Team. The

Setup Team configures the Storm Center as directed by the Storm Center Lead, and configures the Logistics Center as directed by the Logistics Center Lead.

Storm Center Organization Chart: [See Attachment 2](#)

TOPD-Florida System Contacts: [See Attachment 3](#)

## 5.0 CONFERENCE CALL AGENDA/CHECKLIST

### PRIOR TO EVENT

<input type="checkbox"/> <b>Roll Call <u>CAROLINAS</u></b> <input type="checkbox"/> Logistics <input type="checkbox"/> ETA <input type="checkbox"/> NCTA	<input type="checkbox"/> SWTA <input type="checkbox"/> ECC <input type="checkbox"/> Department VP	<input type="checkbox"/> IT&T <input type="checkbox"/> Safety <input type="checkbox"/> Wholesale	<b>TSC</b>
<input type="checkbox"/> <b>Roll Call <u>FLORIDA</u></b> <input type="checkbox"/> Logistics <input type="checkbox"/> NTA <input type="checkbox"/> STA <input type="checkbox"/> Trans. Financial	<input type="checkbox"/> Corporate Security <input type="checkbox"/> CTA <input type="checkbox"/> ECC <input type="checkbox"/> Department VP <input type="checkbox"/> Fleet	<input type="checkbox"/> IT&T <input type="checkbox"/> Safety <input type="checkbox"/> Wholesale <input type="checkbox"/> Stores	<b>TSC</b>
<input type="checkbox"/> <b>Safety / Messages to the troops</b> <input type="checkbox"/> Messages to reinforce commitment to safety excellence			<b>VP &amp; Safety</b>
<input type="checkbox"/> <b>Weather Forecast</b> <input type="checkbox"/> Reference projected path & timeline storm map on storm web site <input type="checkbox"/> Discussion of start/stop wind timeline <input type="checkbox"/> Rainfall and flooding, ice accretion <input type="checkbox"/> Area impact, damage predictions, based on the forecast.			<b>TSC</b>
<input type="checkbox"/> <b>Resources Availability / Readiness</b> <input type="checkbox"/> Construction, Maintenance, Contract Crew Availability and Equipment <input type="checkbox"/> Contract Line crews (on-system and off-system) <input type="checkbox"/> Tree crews (on system and off system) <input type="checkbox"/> Special resources (Helicopter, Track Equipment, other) <input type="checkbox"/> Planned mobilization timeline – updates <input type="checkbox"/> Confirm resource availability versus projected resource needs			<b>Logistics</b>
<input type="checkbox"/> <b>Logistics support</b> <input type="checkbox"/> Materials issues/availability vs projected need (poles, hardware, other) <input type="checkbox"/> Transportation – Vehicle needs <input type="checkbox"/> Telecom – cell phone, radio needs <input type="checkbox"/> Financial – storm credit cards, storm project numbers <input type="checkbox"/> For Level IV (heavy damage) event: <input type="checkbox"/> Verify adequate plan for crew receiving, processing, staging, logistics <input type="checkbox"/> Prepare for potential material lay-down sites (personnel, security, communications, loading/unloading equipment, consumables)			<b>Logistics</b>
<input type="checkbox"/> <b>Area reports <u>CAROLINAS</u></b> <input type="checkbox"/> ETA <input type="checkbox"/> NCTA <input type="checkbox"/> SWTA			<b>ATCs</b>
<input type="checkbox"/> <b>Area reports <u>FLORIDA</u></b> <input type="checkbox"/> NTA <input type="checkbox"/> STA <input type="checkbox"/> CTA			<b>ATCs</b>
<input type="checkbox"/> <b>Non-craft personnel availability</b> <input type="checkbox"/> Non-craft support personnel for maintenance (guides, runners, Storm Center support, lay-down site manning) <input type="checkbox"/> Non-craft support for other departments (releases to Distr, CSC, Florida)			<b>Logistics</b>
<input type="checkbox"/> <b>ECC Update</b> <input type="checkbox"/> Preparation activities – updates			<b>ECC</b>
<input type="checkbox"/> <b>System Storm Center</b> <input type="checkbox"/> Confirm system storm, logistics, and Area Storm Center hours of manned operations <input type="checkbox"/> Review actions & open issues <input type="checkbox"/> Verify next conf call time and phone number <input type="checkbox"/> Preparation plans – system issues			<b>TSC</b>

## **DURING THE EVENT**

<input type="checkbox"/> <b>Roll Call</b> <u>CAROLINAS</u> <input type="checkbox"/> Logistics <input type="checkbox"/> SWTA <input type="checkbox"/> ETA <input type="checkbox"/> ECC <input type="checkbox"/> NCTA <input type="checkbox"/> Department VP	<input type="checkbox"/> IT&T <input type="checkbox"/> Safety	<b>TSC</b>
<input type="checkbox"/> <b>Roll Call</b> <u>FLORIDA</u> <input type="checkbox"/> Logistics <input type="checkbox"/> CTA <input type="checkbox"/> NTA <input type="checkbox"/> ECC <input type="checkbox"/> STA <input type="checkbox"/> Department VP <input type="checkbox"/> Trans. Financial <input type="checkbox"/> Fleet	<input type="checkbox"/> IT&T <input type="checkbox"/> Safety <input type="checkbox"/> Wholesale <input type="checkbox"/> Stores	<b>TSC</b>
<input type="checkbox"/> <b>Safety / Messages to the troops</b> <input type="checkbox"/> Messages to reinforce commitment to safety excellence		<b>VP or Safety</b>
<input type="checkbox"/> <b>Transmission Outage updates</b> <u>CAROLINAS</u> <input type="checkbox"/> ETA <input type="checkbox"/> NCTA <input type="checkbox"/> SWTA		<b>ATCs</b>
<input type="checkbox"/> <b>Transmission Outage updates</b> <u>FLORIDA</u> <input type="checkbox"/> NTA <input type="checkbox"/> STA <input type="checkbox"/> CTA		<b>ATCs</b>
<input type="checkbox"/> <b>Weather &amp; Distribution status update)</b> <input type="checkbox"/> Update of pertinent weather information (exposure to additional weather events, or update on weather working conditions) <input type="checkbox"/> Customers out and estimated restoration for the distribution system		<b>TSC</b>
<input type="checkbox"/> <b>Resources Assignments / Mobilization</b> <input type="checkbox"/> Status of mobilization <input type="checkbox"/> Assignments of crews (contract / company / tree) <input type="checkbox"/> Special resource assignments (Helicopter, Track Equipment, other) <input type="checkbox"/> Additional needs <input type="checkbox"/> De-mobilization timeline – when appropriate		<b>Logistics</b>
<input type="checkbox"/> <b>Logistics support</b> <input type="checkbox"/> Materials issues/availability vs projected need (poles, hardware, other) <input type="checkbox"/> Transportation issues <input type="checkbox"/> Communications issues <input type="checkbox"/> For Level IV (heavy damage) event: <input type="checkbox"/> Crew receiving, processing, staging, logistics issues <input type="checkbox"/> Lay-down sites (personnel, security, communications, loading/unloading equipment, consumables) issues		<b>Logistics</b>
<input type="checkbox"/> <b>Area reports restoration issues</b> <u>CAROLINAS</u> <input type="checkbox"/> ETA <input type="checkbox"/> NCTA <input type="checkbox"/> SWTA		<b>ATCs</b>
<input type="checkbox"/> <b>Area reports restoration issues</b> <u>FLORIDA</u> <input type="checkbox"/> NTA <input type="checkbox"/> STA <input type="checkbox"/> CTA		<b>ATCs</b>
<input type="checkbox"/> <b>Non-craft personnel assignments</b> <input type="checkbox"/> Non-craft support personnel for maintenance <input type="checkbox"/> Non-craft support for other departments		<b>Logistics</b>
<input type="checkbox"/> <b>ECC Update</b> <input type="checkbox"/> Dispatch, communications, emerging issues,		<b>ECC</b>
<input type="checkbox"/> <b>System Storm Center</b> <input type="checkbox"/> Confirm System, Area Storm, & Logistics Ctr. hrs. of manned operations <input type="checkbox"/> Review priorities, actions, & open issues <input type="checkbox"/> Are all ETRs current? <input type="checkbox"/> Verify next conf call time and phone number		<b>TSC</b>

## **6.0 TRANSMISSION LOGISTICS CENTER**

### **6.1 Logistics Center Duties and Responsibilities -**

- Provide for engineering, materials, contracting, accounting, fault locations, General Office and scheduling support in restoration activities as requested by Transmission Maintenance Area Storm Centers and prioritized by the Transmission Storm Center.
- Serve as contact to DISTRIBUTION ASSET MANAGEMENT when Transmission Storm Center is not activated.
- Track all resources and location of Transmission Employees and contractors.
- Update Transmission Operations and Planning Department Storm On-Line Tracking Tool with Crew Information and Locations.

<b>Transmission Logistics Center:</b>	Provides logistics (resources) to storm restoration priorities
Logistics Support Coordinators:	Provides overall coordination and direction to Logistics Center support teams.
Contract Support Team:	Provides any contracted human resources, materials, equipment to restore system.
• ROW Support:	Provides helicopters and performs damage assessments with area supervisors; provides clearing crews for access to work areas.
• Contracts Support:	Provides contract resources for storm restoration (crews, equipment, etc.)
• Misc. Contracts Support:	Contract Crew Tracking and Heavy Hauling Support provide
Materials Team:	Provides all materials for restoration (poles to buggy stock)
• Materials Support:	Enter, track and monitor the request and fulfillment of materials required for storm restoration.
Administrative Team:	
• Financial Tracker:	Establishes charging codes, charge cards and monitors costs of storm restoration
• Hotel Support / Travel Center:	Provides hotel accommodations for logistics support, maintenance support, supervisors and contract crews. Manages all hotels for transmission in collaboration with distribution hotels / travel center.
• Phone Duty:	Responds to all phone calls from regions and field; document request, time & date stamp, send request to appropriate support area for fulfillment.
• Data Entry:	Enter all phone requests into Storm Tool and track open requests; confirm closed requests.
• Runner:	Field support for Maintenance Areas / Crews; must be prepared to travel into storm damaged area and provide whatever the crew/Maintenance Area Storm Center/Logistics require to perform restoration activities. (I.e. delivery of drawings to meals). See detailed roles/responsibility and checklist.

### **6.2 Logistics Support Coordinator -**

Pre- Storm

- |                       |   |
|-----------------------|---|
| 96 hours before Storm | <ul style="list-style-type: none"> <li>- Initiate Pre-Storm activities upon notification of Pre-Storm Declaration by Transmission System Coordinator.</li> <li>- Ensure that the Contracts Team provides list of available helicopter service, moves them into location where storm/emergency is not expected to hit places on standby status and removes from standby status as directed by Transmission System Coordinator.</li> <li>- Contact Heavy Hauling to get availability of specialized equipment, e.g. track equipment.</li> <li>- Activate satellite phones for the Storm Center</li> </ul>   |
| 72 Hours before storm | <ul style="list-style-type: none"> <li>- Determine required number of rental vehicles and inform Admin Team.</li> <li>- Determine required number of cell phones and company radios and inform Admin Team</li> </ul>  |
| 48 hours before Storm | <ul style="list-style-type: none"> <li>- Notify affected individuals when notified of Transmission Storm Center activation and track resources and their locations. Keep the Transmission Storm Center updated on resource status.</li> <li>- Receive progress of major emergencies from Transmission System Coordinator.</li> <li>- Develop a list of available construction contractors <b>on</b> the system and provide to the Transmission System Coordinator and the Transmission Maintenance Area Coordinators. (Contracts Team)</li> <li>- Develop a list of available construction materials <b>on</b> the system and provide to the Transmission System Coordinator and the Area Transmission Assistant Coordinators. (Contracts Team)</li> <li>- Develop a Materials Team list of available construction materials <b>off</b> the system and provide to the Transmission System Coordinator and the Area Transmission Coordinators.</li> <li>- Have the Contracts Team place contractors on stand-by status as directed by the Transmission System Coordinator.</li> <li>- Ensure that the Materials Team has contacted material suppliers to reserve or hold critical materials for possible later shipment.</li> <li>- Activate Storm cards</li> <li>- Instruct company construction resources to initiate pre-storm activities and forward construction resource availability to Transmission System Coordinator.</li> </ul> |
| 24 hours before Storm | <ul style="list-style-type: none"> <li>- Ensure that Fault Recorder and Aspen Fault Location application expertise is available and the S.R. lab is staffed. (S.R.)</li> </ul>  |



- Ensure that spare parts inventory support personnel are staffed in the Logistics Support Center.
- Ensure that TPP HVAC and lighting is left on during the Logistics Support Center activation.
- Ensure that Materials Team has secured Material Inventory report for all Transmission crews.

This information will be combined into a report similar to the Material Inventory report for the Storm Plan.

- Ensure that Contracts Team has developed list of available construction contractors **off** the system and provide to the Transmission System Coordinator and the Area Transmission Coordinators.
- Activate Logistics Support Center upon direction from Transmission System Coordinator and have designated personnel set up the room.
- Develop preliminary Storm Plan crew schedule for system and provide to Transmission System Coordinator.
- Develop status and schedule/location of construction mobile substations and 230 kV mobile switch and provide to Transmission System Coordinator.

Damage  
Repair

- Contact company construction and contract crews and provide Assessment & Maintenance Area assignment, location to report, and contact person to report to.

Upon cancellation of pre-storm activities, cancel all contractors placed on standby and release all materials being held for Progress Energy.

- Ensure that the contracts team contacts helicopter service for aerial patrol of lines.
- To be provided preliminary outage/damage report from the Transmission System Coordinator.
- To be provided the initial priority for system restoration from the Transmission System Coordinator and updates as priorities change.
- Coordinate all Office resources, Construction crews, and Construction Support Personnel and provide initial single point of contact for Area Transmission Assistant Coordinators. Logistics Support Coordinator may then designate individuals to provide response information to the Area Transmission Coordinator.
- To be provided with each crews work schedule by each Area Transmission Coordinator.
- Provide schedule/listing of resources by Maintenance area and for system; indicating crew (contractor, company, and other utility) by functional area with supervisor's name. This information should be provided and updated daily to the affected Area Transmission

Coordinators and the Transmission System Coordinator.

- Coordinate materials and resources to the prioritized work location, as directed by the Transmission System Coordinator.
- Provide Transmission System Coordinator and all Area Transmission Coordinators with appropriate project number.
- To be provided progress of repairs on a daily basis by the Area Transmission Coordinator.
- To be provided travel conditions in each maintenance area from the Area Transmission Coordinator.
- Ensure that the materials team provides material requisition and delivery information to the Area Transmission Coordinator.
- Provide volunteers to man Family Information Center.

### **6.3 Contract Support Team - Timeline Storm Preparedness**

#### **Pre-Storm**

96 hours  
before  
Storm

- Initiate Pre-Storm activities upon notification of Pre-Storm Declaration by Transmission System Coordinator.
- Coordinate obtaining the number of Helicopters required by the Transmission System Coordinator and Energy Delivery, when requested by DISTRIBUTION ASSET MANAGEMENT, and place Helicopters on "Standby" as directed

**Carolinas** – ROW Management Manager

**Florida** - ROW Management Manager

- Place Transmission Contractors on "Standby" status as directed by the Transmission System Coordinator

72 hours  
before  
Storm

- Verify the number of Helicopters required by the Transmission System Coordinator and Energy Delivery, when requested by DISTRIBUTION ASSET MANAGEMENT, and place Helicopters on "Standby" as directed.

**Carolinas** – ROW Management Manager

**Florida** - ROW Management Manager

- Place Transmission Contractors on "Standby" status as directed by the Transmission System Coordinator

48 hours  
before  
Storm

- Verify the number of Helicopters required by the Transmission System Coordinator, and Energy Delivery, when requested by DISTRIBUTION ASSET MANAGEMENT, and place Helicopters on "Standby" as directed.

**Carolinas** – ROW Management Manager

**Florida** - ROW Management Manager

- Coordinate Helicopter Staging Areas, if practical and possible, and preliminary Helicopter and Progress Energy Contact information when

provided by DISTRIBUTION ASSET MANAGEMENT and Transmission System Coordinator. **Note: Helicopters must be stored in hangers during storm and windy conditions for protection.**

- |                       |  |
|-----------------------|--|
| 24 hours before Storm | <ul style="list-style-type: none"> <li>- Place Transmission Contractors on “Standby” status as directed by the Transmission System Coordinator</li> <li>- Receive progress of major emergencies from Transmission System Coordinator.</li> <li>- Make list of available construction contractors <b>on</b> the system and provide to the Transmission System Coordinator and the Area Transmission Coordinators.</li> <li>- Finalize and Coordinate Helicopter Reporting locations Contact information, when provided by DISTRIBUTION ASSET MANAGEMENT and Transmission System Coordinator.</li> <li>- Provide list of available helicopter service, reporting locations, and estimated Time of Arrival.</li> <li>- Make list of available construction contractors <b>off</b> the system and provide to the Transmission System Coordinator and the Area Transmission Coordinators.</li> <li>- Place contractors on stand-by status as directed by the Transmission System Coordinator. (Contractor should be placed on “Standby” a minimum of 24 hours prior to Storm making land fall)</li> <li>- Provide list of available helicopter service, move them into location where emergency is not expected to hit place on standby status and remove from standby status as directed by Transmission System Coordinator. <b>Note: Helicopters must be stored in hangers during Storm and wind conditions for protection</b></li> <li>- Instruct company construction resources to initiate pre-storm/emergency activities and forward construction resource availability to Transmission System Coordinator.</li> <li>- Develop preliminary Storm Plan crew schedule for system and provide to Transmission System Coordinator.</li> </ul> |
| Damage Repair         | <ul style="list-style-type: none"> <li>- Contact company construction and contract crews and provide Assessment &amp; Maintenance Area assignment, location to report, and contact person to report to.</li> <li>- Contact helicopter service for aerial patrol of lines. (Helicopter provider are to report to Maintenance Area / location as soon as conditions after the storm/emergency allow)</li> <li>- To be provided preliminary outage/damage report from the Transmission System Coordinator.</li> <li>- To be provided the initial priority for system restoration from the Transmission System Coordinator and updates as priorities change.</li> <li>- Remove Contractors, which are not needed from “Standby” status and</li> </ul>  |

release as directed by Transmission System Coordinator

- Provide schedule/listing of resources by Maintenance area and for system; indicating crew (contractor, company, and other utility) by functional area with supervisor's name. This information should be provided and updated daily to the affected Area Transmission Coordinators and the Transmission System Coordinator.
- To be provided progress of repairs on a daily basis by the Area Transmission Coordinator.
- To be provided travel conditions in each maintenance area from the Area Transmission Coordinator.

#### **6.4 Materials Team - Timeline Storm Preparedness**

##### **Pre-Storm**

48 Hours  
before Storm

- Receive progress of major emergencies from Transmission System Coordinator.
- Make list of available construction materials **on** the system and provide to the Transmission System Coordinator and the Area Transmission Coordinators.
- Make list of available construction materials **off** the system and provide to the Transmission System Coordinator and the Area Transmission Coordinators.
- Contact material suppliers to reserve or hold critical materials for possible later shipment.
- Develop status and schedule/location of construction mobile substations and 230 kV mobile switch and provide to Transmission System Coordinator.

24 Hours  
before  
storm

- Secure Material Inventory report for all Transmission crews.
- Provide spare parts inventory support personnel in the Logistics Support Center.
- Burn Material Database CD in case computer system goes down
- Upon cancellation of pre-storm/emergency activities, cancel all contractors placed on standby and release all materials being held for PEC.

Damage Repair

- Coordinate materials and resources to the prioritized work location as directed by the Transmission System Coordinator.
- To be provided progress of repairs on a daily basis by the Area Transmission Coordinator.
- To be provided travel conditions in each maintenance area from the Area Transmission Coordinator.

- Provide material requisition and delivery information to the Area Transmission Coordinator.

## **6.5 Administrative Team - Timeline Storm Preparedness**

- |                       |  |
|-----------------------|--|
| Pre-Storm             | -  |
| 96 Hours before Storm | - Initiate Pre-Storm activities upon notification of Pre-Storm Declaration by Transmission System Coordinator.                         |
| 72 Hours before storm | - Contact Enterprise about availability of cars and obtain required vehicles.  |
|                       | - Obtain required number of cell phones and company radios.  |
|                       | Reserve Meet Me Conference Call Line for Transmission Operations and Planning Department   |
| 48 Hours before Storm | - Ensure that the local HVAC and lighting is left on during the Logistics Support Center activation and Storm Center activation.       |
|                       | - Activate Storm Cards   |
| 24 Hours before storm | - Reserve hotel rooms for Logistics Center Staff and Support Personnel.  |
|                       | - Assist with the Activation of the Logistics Support Center upon direction from the Logistics Center Coordinator                      |
|                       | - Upon cancellation of pre-storm activities, cancel all vehicles, cell phones, radios, hotels and food services being reserved for PE. |
| Damage Repair         | - Assist with Storm Restorations Efforts as needed.  |
|                       | - Determine Food Requirements for Storm Center, Logistics Support Center, SR Lab and Support Personnel and provide refreshments        |
|                       | - Determine Daily Hotel Needs for Staff and ensure that reservations are provided.   |
|                       | - Assist with providing volunteers to man Family Information Center.   |

## **6.6 Heavy Hauling Team - Timeline Storm Preparedness**

- |                       |  |
|-----------------------|--|
| 96 Hours before Storm | Initiate Pre-Storm activities upon notification of Pre-Storm Declaration by Transmission System Coordinator.   |
| 48 Hours before Storm | - Locate and haul all Pool Equipment back to Wildwood for staging for the storm.   |
|                       | - Place contractors on stand-by status as directed by the Transmission System Coordinator (Contractor should be placed on "Stand-by" a minimum of 24 hours prior to the storm making land fall). |

## **7.0 WHOLESALE CUSTOMER**

### **7.1 Wholesale Customers Duties and Responsibilities**

- The Wholesale Storm Center (WSC) is normally activated when the Transmission Storm Center is activated.
- It is staffed by Transmission Planning Unit with assistance from Account Management – North Unit (Regulated Commercial Operations) personnel if needed. In the event RCO staff provides assistance, the Legal Department will file for an exception to FERC Code of Conduct.
- The Wholesale Storm Center (Carolinas) is located in TPP 17C3-4 where phones and computer equipment are installed.
- The Wholesale Storm Center (Florida) is located in the Transmission Storm center.
- Upon activation, staff contacts the CSC and coordinates the transfer of the Wholesale Customer Service Restoration Hotline (800-615-4893) to the WEC.
- WSC staff notifies wholesale customers, DISTRIBUTION ASSET MANAGEMENT Storm Center, Transmission Storm Center, and ECC of its activation.
- When customer outage calls are received from customers, outage information is relayed to the appropriate Distribution Operations Center (currently developing access to DCC's Web based ticket reporting system) for distribution served POD outages or reported to the ECC and Transmission Storm Center for transmission POD outages.
- WSC staff obtains outage status information from the various distribution and transmission Storm Centers and/or Region staffs to provide appropriate information to customers and/or obtains information from customers for the Company's restoration operations.

## **8.0 MAINTENANCE AREAS**

In the event of severe damage to transmission facilities, due to storm or other cause, the repair of which is beyond the capability of local Transmission Maintenance Personnel, the resources of the Company will be consolidated to the extent deemed necessary by the System or Area Transmission Coordinator, in accordance with the following outline.

In the Transmission Operations and Planning Department, each Area will have appropriate personnel, facilities, and equipment under the direction of the Area Transmission Coordinator. The Area Transmission Coordinators will report to the Assistant System Coordinator for the Transmission Operations and Planning Department.

All staff assignments and other necessary information must be kept up to date and reviewed annually. Area Transmission Coordinators must be ready to affect the transfer of help to other areas with a minimum of confusion and delay, as well as to direct the work of numerous crews with efficiency and safety in case of trouble in their own areas.

The decision on which Storm Center(s) to activate will depend on the location of the storm/emergency. The body of this document applies to all locations, with separate attachments for contacts primarily supporting each location.

**THE SAFETY OF EMPLOYEES AND THE PUBLIC WILL, AT ALL TIMES, BE THE PRIME CONSIDERATION!**

**8.1 Area Transmission Coordinator**

The Area Transmission Coordinator will coordinate all the Company transmission resources in the respective Area in a severe storm or other disaster in an effort to maintain or restore service.

- The Area Transmission Manager is responsible for insuring the area contact lists for storm/emergency restoration are maintained current.
- Under the authority of the Transmission System Coordinator, the Area Transmission Coordinator will have similar authority on the Transmission Area level.

**8.2 Staff Engineer**

Will normally work with the Area Transmission Coordinator, providing relief for rest and meals and otherwise assisting as needed.

- Can be designated as a Field Coordinator.
- Will be available to assess damage to Area substations and lines and provides local design review to local storm restoration and repair.
- Will maintain a current substation direction book.

**8.3 Maintenance Supervisor**

Will coordinate personnel restoration activities as directed by the Area Transmission Coordinator and ECC dispatcher.

- Will normally work with the Area Transmission Coordinator, providing relief for rest and meals and otherwise assisting as needed..
- Can be designated as a Field Coordinator.
- Will act as liaison between Transmission Maintenance and other PE or contract personnel
- Will see that the generator located at the headquarters is tested periodically in anticipation of a storm/emergency, the tank level is checked and filled as necessary in anticipation of a storm/emergency (Substation Supervisor).
- Will, in anticipation of the storm/emergency, fuel all vehicles, test and charge all portable radio batteries, test and fuel all portable generators, emphasize the importance of minimizing radio traffic on primary channels, and check the operation of all pagers and cellular phones.
- Will contact fuel vendors and arrange for fuel supply needs. This will include field refueling.
- Will assist with Company/Contractor expense documentation and the implementation of all special accounting practices.
- Will keep a complete log of events.



- Will assign a member of crew (normally the Senior Lineman) to work with a Field Coordinator stationed at the Storm control center in the determining and dispatching of materials.

#### **8.4 Forester**

Will normally work with the Area Transmission Coordinator, serving as relief for rest and meals and otherwise assisting as needed, particularly with moving and accounting for extra crews.

- Can be designated as a Field Coordinator.
- Will assess ROW damage and clearing needs.
- Will organize support from local contractors, coordinating all ROW and clearing activities.
- Will maintain Transmission Area maps to be copied and distributed to out-of-town crews.
- Will maintain a current contractor directory.
- Will gather and provide information on road access from state and local agencies with the help of the Staff Engineer and the Support Staff.
- Will arrange for aerial patrol of lines. When appropriate, will notify contract helicopter in advance and route to a location on the system where the storm is not expected to hit.
- Will help with the distribution, crew registration forms, voucher forms, and will be responsible for notification of charge numbers.
- Will assist with Company/Contractor expense documentation and the implementation of all special accounting practices.

#### **8.5 Administrative Assistant**

Will assist in communications between the Storm Center and field operations

- Will lend clerical support to the Area Transmission Coordinator as needed.
- Will help man the Storm Center telephone/radio.
- Will contact and make arrangements with the local Division Services Coordinator for the possible need of rooms in advance; once needs are known, make reservations through the local Division Services coordinator.
- Will make arrangements for meals for personnel involved in restoration of the system through the local Division Services Coordinator.
- Will be responsible for maintaining and distributing up-to-date employee directories, Storm Center telephone numbers, and inserts for inclusion in this plan
- Will help with the distribution, crew registration forms, voucher forms, and will be responsible for notification of charge numbers.

#### **8.6 Regional Data Coordinator**

Work within the regional storm center to provide data entry of outages, clearances, work in progress and restored lines/subs.

- The Coordinator must be trained in Storm/ECC tool and system data / 1-lines.

### **9.0 PRE-STORM PREPARATION TIMELINES**

#### **9.1 Area Transmission Coordinator Pre-Storm Checklist**

<b>BEGINNING OF STORM SEASON (6-1)</b>		
	Verify that staff revised and updated Storm Plan Contact List.	
	During the January and June Safety Council Meeting, discuss with employees the PE philosophy concerning employee safety during emergencies.	
	Verify area staff have completed pre-storm season check list.	
<b>96 – 72 HOURS PRIOR TO THE STORM</b>		
	Verify area staff have completed 96-72 hour check list.	
<b>72 – 48 HOURS PRIOR TO THE STORM</b>		
	Check tools and equipment including flashlights, boots, and rain suits, etc.	
	Review Storm Plan responsibilities.	
	Review safety responsibilities.	
	Verify area staff have completed 72-48 hour check list.	
<b>48 – 24 HOURS PRIOR TO THE STORM</b>		
	Track storm and projected time, area, amount of damage. Set up on-going weather information channel. Evaluate need to request onsite IT support for the Storm Centers.	
	Hold staff meeting and ascertain their state of readiness.	
	Check all tools and equipment, to include flashlights, boots, and rain suits.	
	Review Storm Plan responsibilities.	
	Review safety responsibilities.	
	Place contract and Progress Energy crews on standby.	
	Prepare a grab bag of clothes and hygiene items.	

	Verify area staff have completed 48- 24 hour check list.	
<b>24 – 0 HOURS PRIOR TO THE STORM</b>		
	Review crew readiness and availability.	
	Evacuate families if necessary.	
	Prepare headquarters area for storm/emergency.	
	Check availability and operation of pagers and portable radios.	
	Verify area staff have completed 24-0 hour check list.	

## 9.2 Staff Engineer Pre-Storm Checklist

<b>96 – 72 HOURS PRIOR TO THE STORM</b>		
	Make the necessary arrangements for staging areas.	
<b>72 – 48 HOURS PRIOR TO THE STORM</b>		
	Assist ATC to make arrangements for possible need of company crews.	
	Check all tools and equipment including flashlights, boots, and rain suits, etc.	
	Review Storm Plan responsibilities.	
	Review safety responsibilities.	
<b>48 – 24 HOURS PRIOR TO THE STORM</b>		
	Assist ATC to make arrangements for possible need of company crews.	
	Assist ATC in establishing Storm Center.	
	Check first aid kits.	
	Prepare a grab bag of clothes and hygiene items.	
<b>24 – 0 HOURS PRIOR TO THE STORM</b>		
	Evacuate families if necessary.	
	Prepare headquarters area for storm/emergency.	
	Check availability and operation of pagers and portable radios.	

### 9.3 Maintenance Supervisor Pre-Storm Checklist

<b>BEGINNING OF STORM SEASON (6-1)</b>		
	Chain saw training and equipment obtained/checked.	
	Check condition of all vehicles.	
<b>96 – 72 HOURS PRIOR TO THE STORM</b>		
	Line Supv: Check inventory; poles, arm, etc.	
	Sub Supv: Secure all items in all substations	
	Check condition of all vehicles and fill fuel tanks.	
	Verify need for and request satellite phones	
<b>72 – 48 HOURS PRIOR TO THE STORM</b>		
	Line Supv: Check with Transmission Construction for number of available crews.	
	Check all tools and equipment including flashlights, boots, and rain suits, etc.	
	Review Storm Plan responsibilities.	
	Review safety responsibilities.	
<b>48 – 24 HOURS PRIOR TO THE STORM</b>		
	Line Supv: Review Storm Plan responsibilities of contractor with contract management: * Reporting location, * Meal tickets, * Motel tickets, * Time sheets, * Contractor work schedule, * Crew sign-in process, staging areas and crew tracking	

	Check all tools and equipment, to include flashlights, boots, and rain suits.	
	Sub Supv: At TM Headquarters, Check gas in tank for the generator and arrange for refueling truck to be on site.	
	Sub Supv: At TM Headquarters, Check gas in tank for the generator and arrange for refueling truck to be on site.	
	Sub Supv: Check generator and emergency lights.	
	Discuss crew assignments.	
	Contact other Company crews.	
	Check for special tools - chain saw, air compressor, large generator.	
	Check first aid kits.	
	Review Pre-Event Briefing with Crew	
	Prepare a grab bag of clothes and hygiene items.	
<b>24 – 0 HOURS PRIOR TO THE STORM</b>		
	Move equipment out of storm path to safe area, if necessary.	
	Review crew readiness and availability.	
	Fill all vehicles and cans with fuel. (Spray windshields with Rain-X)	
	Evacuate families if necessary.	
	Prepare headquarters area for storm/emergency.	
	Obtain water and ice for each vehicle.	

	Check availability and operation of pagers and portable radios.	
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## 9.4 Forester Pre-Storm Checklist

96 – 72 HOURS PRIOR TO THE STORM		
	Review area maps to assure that they are current	
	Review contractor labor, equipment, and phone number list to verify they are current.	
	Check contractor packets for crews.	
	Check condition of vehicle and fill fuel tank.	
72 – 48 HOURS PRIOR TO THE STORM		
	Make initial contact with helicopter service – verify availability and location.	
	Check tools and equipment including flashlights, boots, and rain suits, etc.	
	Review Storm Plan responsibilities.	
	Review safety responsibilities.	
48 – 24 HOURS PRIOR TO THE STORM		
	Make available current maintenance area maps.	
	Review contractor labor, equipment and phone number list to assure they are current.	
	Have contractor packets for crews available.	
	Review Storm Plan responsibilities of contractor with contract management: * Reporting location, * Meal tickets, * Motel tickets, * Time sheets, * Contractor work schedule, * Crew sign-in process, staging areas and crew tracking	

	Make follow-up contact with helicopter service - verify availability and location.	
	Check ready effort of contract crews.	
	Check first aid kits.	
	Prepare a grab bag of clothes and hygiene items.	
<b>24 – 0 HOURS PRIOR TO THE STORM</b>		
	Put contractors on ready alert.	
	Assure contract crews know where, when, and to whom to report.	
	Contact helicopter service-position helicopter at closest "safe" location.	
	Review crew readiness and availability.	
	Fill vehicle and cans with fuel. (Spray windshields with Rain-X)	
	Evacuate families if necessary.	
	Prepare headquarters area for storm/emergency.	
	Obtain water and ice for each vehicle.	
	Check availability and operation of pagers and portable radios.	

## 9.5 Administrative Assistant Pre-Storm Checklist

<b>BEGINNING OF STORM SEASON (6-1)</b>		
	Verify and distribute updated Storm Plan organizational charts, phone lists, and identify where to find those.	
<b>96 – 72 HOURS PRIOR TO THE STORM</b>		
	Contact Facilities Management to check gas in the tank for the local generator(s).	
	Check ice machine to see if ice is needed. Contact local ice company if needed.	
<b>72 – 48 HOURS PRIOR TO THE STORM</b>		
	Review Storm Plan responsibilities.	
	Review safety responsibilities.	
<b>48 – 24 HOURS PRIOR TO THE STORM</b>		
	Ask for additional portable cell phones and hand held radios and distribute.	
	Stock food and water at headquarters; order port-a-johns.	
	Check all tools and equipment, to include flashlights, boots, and rain suits.	
	Assist ATC in establishing Storm Center.	
	Prepare a grab bag of clothes and hygiene items.	
	Contact District Coordinator to reserve hotel rooms.	
	Contact District Coordinator regarding meals for crews.	
	Contact District Coordinator regarding fuel supply needs for vehicles.	

	Contact District Coordinator regarding availability of local garages for vehicle repairs.	
<b>24 – 0 HOURS PRIOR TO THE STORM</b>		
	Contact District Coordinator to confirm number of hotel rooms needed and to confirm meal arrangements.	
	Man Storm Center and radio.	
	Prepare headquarters area for storm	

## **10.0 Links to Local Maintenance Area Contacts**

**10.1 Florida NTA** - <\\s00225\grpdata\TransDocs\Storm\Fla NTA Contacts>

**10.2 Florida STA** - <\\s00225\grpdata\TransDocs\Storm\Fla STA Contacts>

**10.3 Florida CTA** - <\\s00225\grpdata\TransDocs\Storm\Fla CTA Contacts>

## **11.0 Transmission Maintenance Area Storm Plan Accounting Procedures**

Storm Plan accounting procedures for the Transmission Operations and Planning Department are not effective **until** the Transmission System Coordinator (or the designated Assistant) requests their implementation by the Vice President and Controller -Accounting. These procedures are intended for use when there is severe **and** extensive damage to transmission facilities.

### **Road Tax for Diesel Fuel**

If arrangements are made with a vendor to deliver diesel fuel, make sure the vendor understands when he prepares his invoice that PROGRESS ENERGY does not pay the road tax on this fuel.

For questions concerning the current accounting procedures, contact Susan Croom (Carolinas) at VN 770-5382 or Bell 919-546-5382 or Matt Petrousky at VN 280-2240 or Bell 407-942-9240 or cell 407-491-4103.

## **12.0 Nuclear Plant Siren Restoration Plan**

After a major storm/emergency event such as a hurricane, sirens surrounding nuclear plants may be without service. These sirens are served by both PROGRESS ENERGY and other electric service providers. Plants cannot return to service until the power is restored to the sirens and they have been tested. The financial impact to PROGRESS

ENERGY of not having nuclear plants operational is significant. It is critical to assign a very high priority to the restoration of power to sirens.

The following action plan describes the process to be followed to ensure sirens are returned to service as quickly as possible following a major storm/emergency event.

<b>Nuclear Siren Restoration Action Plan</b>			
<b>Item to be Addressed</b>	<b>How Identified</b>	<b>Who</b>	<b>Status/Results</b>
1. Determine number and location of inoperative sirens and report results to DISTRIBUTION ASSET MANAGEMENT and Transmission Storm Centers.	Brunswick/Robinson: electronic feedback/reporting from each site. Harris: notify and dispatch Sanford TSM and/or Telecommunication crews to assess each site.	Emergency Preparedness (EP) at each affected plant will analyze data and communicate to DISTRIBUTION ASSET MANAGEMENT Operation and Transmission Area Storm Centers. EP at each affected plant will provide status reports to DISTRIBUTION ASSET MANAGEMENT Department and Transmission Operations and Planning Department Storm Centers.	Number and location of inoperative sirens is communicated to DISTRIBUTION ASSET MANAGEMENT and Transmission Storm Centers.

### 13.0 Health, Safety and Environmental – [Environmental Contact Information](#)

#### 13.1 Storm Safety Message

- [Storm Information](#)

### 14.0 Health, Safety and Environmental Services System Storm Plan Instructions

#### 14.1 Health & Safety Services Transmission Support

- Monitoring and assigning Safety Representatives as needed
- Coordinating, tracking and dispersing Storm Plan Safety Reports
- Providing and dispersing daily Storm Plan safety tips
- Assisting on accident investigations and Workers' Compensation issues
- Providing safety support to regions as needed
- Providing on site medical support as needed

### 15.0 Pre-Event Briefing

#### 15.1 Working in Windy Conditions

- The person in charge (PIC) of the crew must ensure the safety of all employees and cease work or travel when it becomes hazardous.
- Employees should cease traveling (in all vehicles) or working, including climbing, when winds reach tropical storm velocity of 39 MPH.
- The Area Storm Center has the authority to cancel all storm restoration related travel and work activities if weather conditions are expected to continue to deteriorate locally.

- The Area Storm Center will be contacted if assistance is needed to ascertain forecasted wind speeds in the work area.
- Transmission class bucket trucks will be equipped with an approved anemometer to determine wind speed in the work area.

## **15.2 Use of Transmission Class Bucket Trucks in Windy Conditions**

- Employees are prohibited from operating bucket trucks in the elevated work position when the wind speed (steady or gusts) exceeds 30 MPH.
- Any manufacture's recommended wind speed guideline, for bucket trucks operating in the elevated position, which is less than 30 MPH must be adhered to for said equipment. (Example: Condor (Transmission) recommends a maximum wind speed of 25 MPH.)
- The wind speed must be determined by using an approved anemometer before vehicles equipped with an aerial lift device are operated in the elevated work position.
- The wind speed must be periodically tested with an approved anemometer at the work elevation throughout the work process if windy conditions are present in the work area.
- When operating in winds up to, but not exceeding 30 MPH, follow these precautions:
  - Outriggers, if so equipped, must be properly extended and on firm ground. Always use outrigger pads if there is any doubt as to the ground firmness.
  - On units without outriggers, the tires must be properly inflated and on firm ground. The truck must be maintained at a safe angle as described in the operator's manual.
  - Refer to specific equipment operator / instruction manual for other precautions.

## **15.3 Work Coordination**

- **Coordination of Personnel:** Field personnel will be dispatched by the local area storm centers and will contact the ECC/DCC upon arrival at the work site.
- **Hours of Work:** The hours of work will be determined by the local area storm center. In general each person is permitted to initially work a maximum of 25 continuous hours before being rested. All hours should be counted once a person reports for work, including travel time to and from the job site. The hours that should be counted should also include breaks and rest periods that are less than eight hours in length. After the initial work period, the employee should be allowed to rest a minimum of 8 hours before returning to work. After the initial work period, employees should be limited to a maximum of 16 hours for each work period. In general, personnel are more productive in daylight hours and the majority of field personnel should have their hours scheduled in daylight.
- **Special Circumstances:** If special circumstances dictate that a major objective can be achieved by working an additional three hours or less, this will be allowed only if authorized through the local area storm center. Any

personnel working more than 28 hours should have approval from the Transmission System Storm Coordinator.

- **Hours of Rest:** Each person should have at least eight hours of rest scheduled between work periods.
- **Work History:** Upon reporting for storm/emergency duty, each person's work history should be evaluated to determine how many hours of work are available before rest should be scheduled. All prior hours worked, including travel time, that has not been preceded by an eight hour rest period should be counted.

## **16.0 Health and Safety Services Regional Storm Plan Instructions**

### **16.1 Instructions for use of safety information -**

- [Personal Injury/Property Damage](#)
- Crew Safety Instructions ([Add Link](#))
- [Regional Safety/Claims Representatives](#)
- [Storm Accident & Injury Reporting](#)

### **16.2 Designated Safety Representatives Regional Storm Plan**

- Providing necessary assistance with accidents
- Assisting with Workers' Compensation issues
- Supporting safety awareness with crews
- Sharing Storm related accident information
- Supporting crews with personal protective equipment needs

## **17.0 Contract and Accounting Procedures**

- [Storm Accounting Procedures](#)
- [Storm Accounting Tasks](#)

### **17.1 Contract Provisions for Storm Work**

When contractor is utilized under storm/emergency conditions due to hurricanes, snow, ice emergencies, etc., or for special assignments requested by PROGRESS ENERGY Company (hereinafter "Progress Energy"), the following conditions apply:

- Contractor agrees to furnish all labor, tools, equipment, transportation, and supervision to perform storm/emergency work at the following rates: Assisting with Workers' Compensation issues
  - Equipment at contractor's standard hourly rates.
  - Labor at contractor's hourly payroll rate in effect at the time the work is done, plus overhead.
- All invoices for work done at hourly rates will be supported by a copy of the time tickets. Overtime for a partial week will be supported by time tickets for the full week.
- Each meal ticket which Progress Energy is obligated to pay, whether charged to Progress Energy or billed on the invoice, will show the name of the



restaurant, town, date, which meal, name of the contractor, and Progress Energy, and each meal ticket will be signed by contractor's employee. Contractor employee shall be provided a meal every six hours.

- Each lodging receipt which Progress Energy is obligated to pay, whether charged to Progress Energy or billed on the invoice, will show the name of the place of lodging, town, date, name of contractor, and Progress Energy, and each receipt will be signed by contractor's employee.
- Before Progress Energy will pay overtime for a partial week, Progress Energy must be furnished documentation of hours worked for each person on another utility system, by means of a copy of work report rendered to that utility company. It is understood that Progress Energy will pay travel time for each person to and from his normal assembly point, to and from each emergency headquarters and, while at emergency headquarters, to and from each work location.
- If a contractor employee is required to work in excess of sixteen (16) hours in the twenty-four (24) hour period, the overtime rate shall prevail until such time as the employee is given an eight (8) hour rest period.

## **17.2 Construction and Clearing Contractors**

Listed in this plan are the Construction and Clearing Contractors. The Contractors, which the Transmission Operations and Planning Department has contract agreements with are indicated with the contract number and expiration dates. These contracts have provisions for payment during emergency and standby situations. The next page is a copy of the contract provisions for Emergency work.

During a major storm/emergency, additional contractor work forces may be necessary. Arrangements for acquiring these additional contractors for mobilizing to work area or standby should be made through the Logistics Support Coordinator. However, if the Area Transmission Coordinator (ATC) makes the original contact, of contractors located in their maintenance area, to acquire additional contract workers, then the ATC should give the home office number and a contact name to the Logistics Support Coordinator. The Transmission Contracts Coordinator will call the contractor's home office and make agreements for payment (equipment and labor rates inclusive). The Transmission Contracts Coordinator will then send a copy of the agreement to the Area Technical Aid to assist her in processing invoices.

Hotel or motel reservations for contract labor will be made and guaranteed by the Area Transmission Coordinator unless the contractor specifies otherwise.

Releasing any contract crews that are on standby requires the approval of the Area Transmission Coordinator and the Transmission System Coordinator (or his assistant). The Transmission System Coordinator is to communicate the released contractor information to the Logistics Support Coordinator.

## **17.3 Crew Registration Instructions**

### **General Information**

- [Crew Registration Form](#) developed to provide the following:
  - Tracking of all crew personnel and equipment in the area.
  - Means for logging out work assignments.
  - Means for documenting any problems or comments that crews feel might be needed for future reference.
  - Method for collecting Fixed Asset Accounting information.

### Instructions

- Side 1 of the form **must** be completed by the Progress Energy Supervisor for his assigned crew when they first report to the area headquarters.
  - **Company:** write in the name of the company that the crew works for (example: Progress Energy, MasTec, Richardson Wayland, etc.). If crew works for Progress Energy, add the area that it is from (example: Progress Energy Asheville Line Crew).
  - **Employee's Full Name:** write in the full name (not nickname) of each member of the crew.
  - **Social Security Number:** fill in the social security number for each crew member.
  - **Progress Energy Supervisor of Crew:** supervisor should write in his name.
  - **Vehicles/Equipment:** list the types of vehicles and equipment assigned to the crew (for example: wire stringer, marsh master, bucket truck, etc.).
  - **Crew Lodging:** list the name of the place where the crew will be staying.
- On Side 2 of the form, the Area Transmission Coordinator will issue the **Date** and **Assignment** for each crew. The Progress Energy Supervisor, or his designee, will record the structure number where his crew began their day's work assignment (**From Structure**) and will also record the structure number where the crew stopped (**To Structure**). The Progress Energy Supervisor, or his designee, will record the number (#) of **poles** his crew replaced during the assignment, the % of **insulators** that had to be replaced, and the % of **conductor** that had to be replaced during each day's assignment.

The **Comments/Problems/Follow-up Needed** section will be completed by the crew's supervisor to record any information that may be needed by the Emergency Area's maintenance crews after storm/emergency work has been completed (example: structures that were repaired using engineering-approved substitutes, any temporary fixes that should be replaced after all storm/emergency work has been completed, etc.)

## 18.0 Transmission Storm Credit Card Procedures

Purpose: Storm credit cards are to be used in the event of a major storm/emergency (per the [storm accounting procedure](#))

They are to work in concert with the Transmission Storm Plan. In the event of a **major storm/emergency**, the storm credit cards are to be used for **all** purchases, cash advances, motel bills, meals, vehicle rental, etc. associated with the restoration of the transmission system. This will drastically minimize the number of miscellaneous invoices that must be processed by Accounts Payable. The desired state is for all miscellaneous major

storm/emergency costs incurred for restoration of the transmission system to be handled through these credit cards. This will be a cost savings to PROGRESS ENERGY, and our vendors will be paid immediately.

### **18.1 Transmission Accounting Task Numbers - FL**

#### **Transmission PEF Storm Tasks**

- T7202 - Transmission Storm Support – applies to all major storm support/restoration activities related to the Transmission system, except for what is specifically noted below.
- TTREE – Transmission Tree Trimming – applies to tree trimming contractor costs for Transmission system storm restoration.
- TLNDS – Transmission Landscaping - applies to contractor costs to restore landscaping (i.e. landscaping surrounding a Progress Energy substation) damaged by a major storm.
- TOHLN – Transmission Overhead Line Restoration - applies to internal and contractor costs required to restore Transmission overhead lines damaged by a major storm.
- TUGLN – Transmission Underground Line Restoration - applies to internal and contractor costs required to restore Transmission underground lines damaged by a major storm.

### **19.0 Telecom and External Contacts**

#### **APCO**

Area Code: (540)

<b>Contact</b>	<b>Phone 1</b>	<b>Phone 2</b>
TCC Roanoke	427-3613	427-3614

#### **Duke Energy**

Area Code: (704)

<b>Contact</b>	<b>Phone 1</b>	<b>Phone 2</b>
Transmission	382-9401	382-9402/1-800-326-6537
Generation	382-4413	382-4415
Clearance/Hot Tag Coordination Office	800-326-6528	800-326-6551

#### **Jacksonville Electric Authority**

Area Code: (904)

<b>Contact</b>	<b>Phone 1</b>	<b>Phone 2</b>
24-Hr Emergency	695-7151	

**Santee Cooper(SCPSA)**

Area Code: (843)

<b>Contact</b>	<b>Phone 1</b>	<b>Phone 2</b>
Control Center	761-4033	761-2961
Tom Abrams	843-761-8000, ext. 5200	

**South Carolina Electric and Gas**

Area Code: (803)

<b>Contact</b>	<b>Phone 1</b>	<b>Phone 2</b>
Control Center	799-5243	748-3265
24-Hr Emergency	733-2864	

**TVA**

Area Code: (423)

<b>Contact</b>	<b>Phone 1</b>	<b>Phone 2</b>
Control Center	751-4134	
Transmission	751-4205	1-888-882-4012
Trans-Svc/Sec Coord	751-3141	

**Virginia Power Company**

Area Code: (804)

<b>Contact</b>		
Control Center	273-3341	273-3342
24-Hr Emergency	273-3348	

## **20.0 Florida Emergency Operations Center**

### **20.1 State Emergency Personnel - FL**

- Florida Department of Emergency Management, ESF-12  
Voice: 850-921-0165  
Fax: 850-488-7841
- [Florida Disaster EOC](#)

## **21.0 Mutual Assistance Rosters**

- [Mutual Assistance Rosters](#)

## 22.0 Neighboring Utility Contacts

<b>Gulf Power Company</b>	Supervisor, System Control	Office	(850) 444-6517
<b>Alabama Electric Cooperative, Inc.</b>	Supervisor, Energy Control	Cnt Ctr	(334) 222-2630
<b>Southern Company Services</b>	Power Coordination Center	Office	(205) 257-6303
	Manager, Operations	Office	(205) 257-6892
<b>Virginia Power Company</b>	Control Center	Office 24 Hour Emergency	(804) 273-3341 (804) 273-3348

## 23.0 Current Road Conditions

- **FLA Roads** <http://www.fhp.state.fl.us/traffic/>

## 24.0 Florida Materials Support

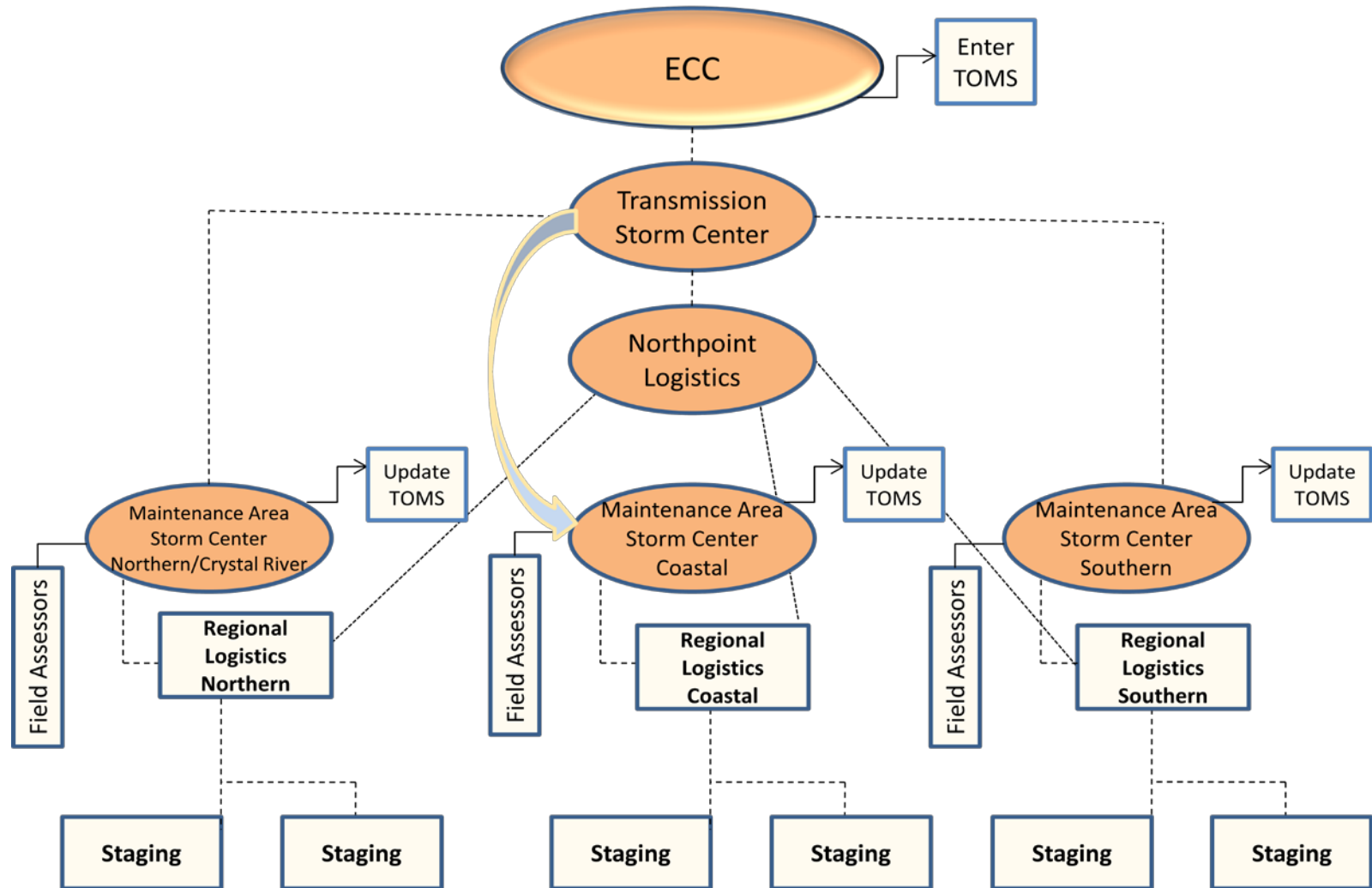
- **Relay and Substation Parts** [\(Add Link\)](#)
- **Wildwood Central Repair** [\(Add Link\)](#)

## 25.0 Post Storm Analysis - FL

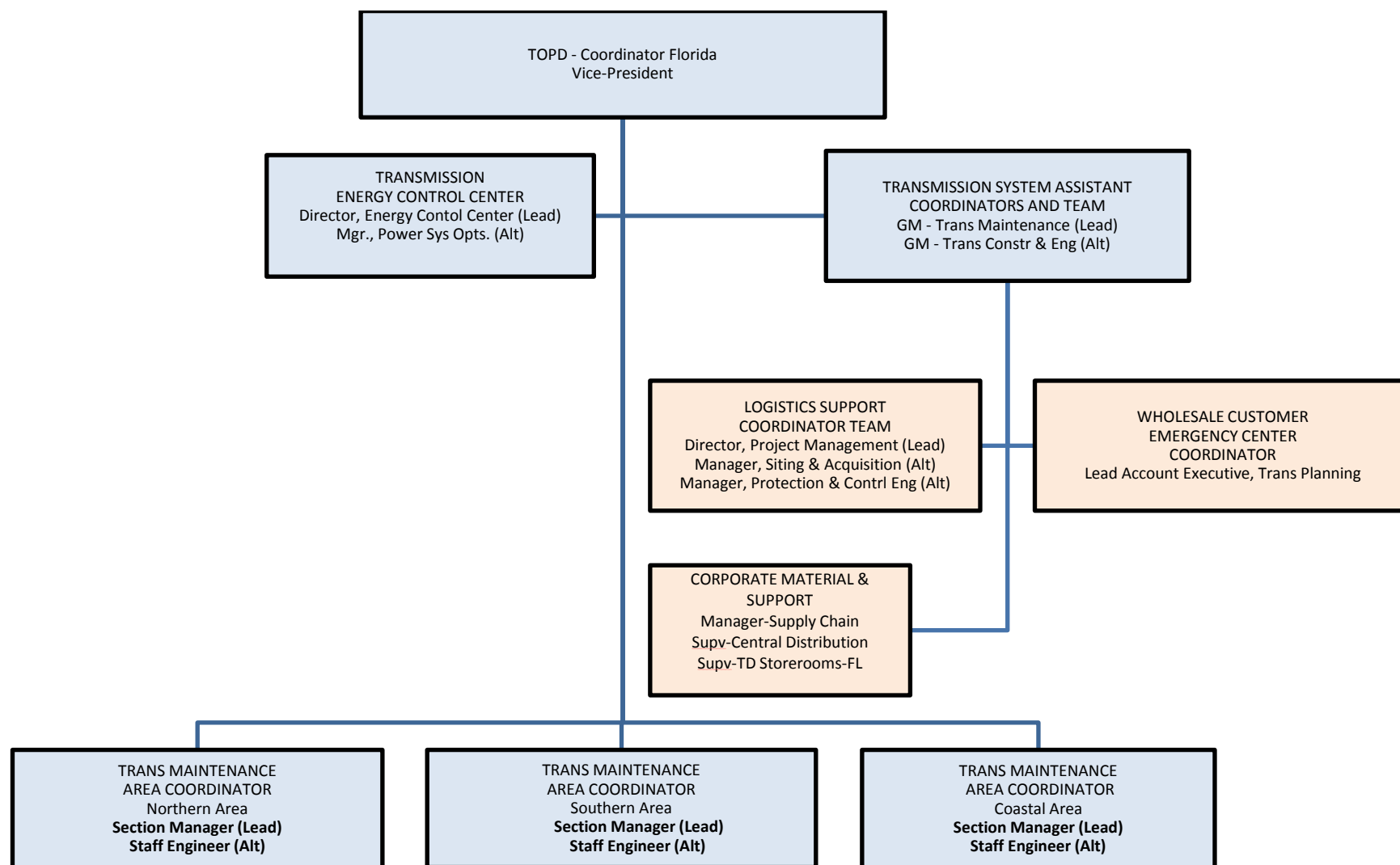
After any major storm, PE is required by the Florida PSC to have an analysis of the storm response and service restoration performed. This is to be done by an outside company. Potential companies for this analysis have been identified. It is the responsibility of the Manager of Transmission Line Engineering to initiate the analysis.

26.0 TOPD –FL Typical Storm Communications – ATTACHMENT 1

**TOPD FLORIDA TYPICAL STORM COMMUNICATIONS**



**27.0 TOPD –FL Coordinator Organization Chart – ATTACHMENT 2**





**28.0 TOPD –FL System Contacts – ATTACHMENT 3**

<b>Description</b>	<b>Bell #</b>	<b>VN#</b>	<b>Fax Bell #</b>	<b>Fax VN#</b>	<b>Satellite#</b>
Trans Storm Center Winter Garden Conference Line	407-905-3523 407-905-3524 407-905-3338	284-3523 284-3524 284-3338			800-851-9854 Speaker ID# 4725
Trans Logistics Northpoint	407-942-9565	280-2565	407-942-9568 407-942-9566 407-942-9567	280-2568 280-2566 280-2567	877-734-5341 Speaker ID# 4728
Northern - Monticello	850-342-2356	224-2356	850-342-2321	224-2321	
Northern - Crystal River	352-795-0504 Ext. 6573	240-6573			888-237-6323 Speaker ID# 4726
Northern – Apopka (Alt)	407-646-8571	237-5571			
Northern – High Springs (Alt)	352-694-6602	220-6602	386-454-3370		
Southern – Buena Vista	407-938-6713 407-938-6714 407-938-6712	280-6713 280-6714 280-3712	407-938-6720	280-6720	800-851-9854 Speaker ID# 4724
Coastal – Tarpon Springs	727-939-4373	232-4373	727-939-4329	232-4329	877-299-6927 Speaker ID# 4727
Wholesale Customer	407-905-3525	284-3525			
SR Lab	919-546-2350 919-546-6016	770-2350 770-6016	919-546-2684	770-2684	
Distribution	407-942-9581	280-2581	407-942-9588	280-2588	
ECC (Fla)	727-384-0062	230-5717			
IT&T (Danny Stancil)	919-546-3086	770-3086	919-274-7007 Cell		

<b>Dist. Op. Center</b>	<b>Bell #</b>	<b>VN#</b>	<b>Fax Bell#</b>	<b>Fax VN#</b>	<b>Satellite#</b>
Clearwater	877-544-4876	220-4201			
Seven Springs/Tarpon/ Z.Hills	877-372-8255	220-4210			
Walsingham	877-563-6621	220-3795			
St. Petersburg	877-463-6372	220-3793			
Ocala	877-372-4636	220-5181			
Inverness	877-947-2873	220-4319			
Monticello	877-372-5372	220-4316			
Lake Wales	877-275-3728	280-6673			
Highlands	877-275-3728	280-6693			
Buena Vista	877-253-5881	280-6613			
Winter Garden/Clermont	877-352-7697	220-4317			
Conway	877-783-3427	239-4472			
Jamestown	877-367-4765	239-4471			
Apopka/Eustis	877-357-6937	239-4474			
Deland	877-367-7693	239-4473			