



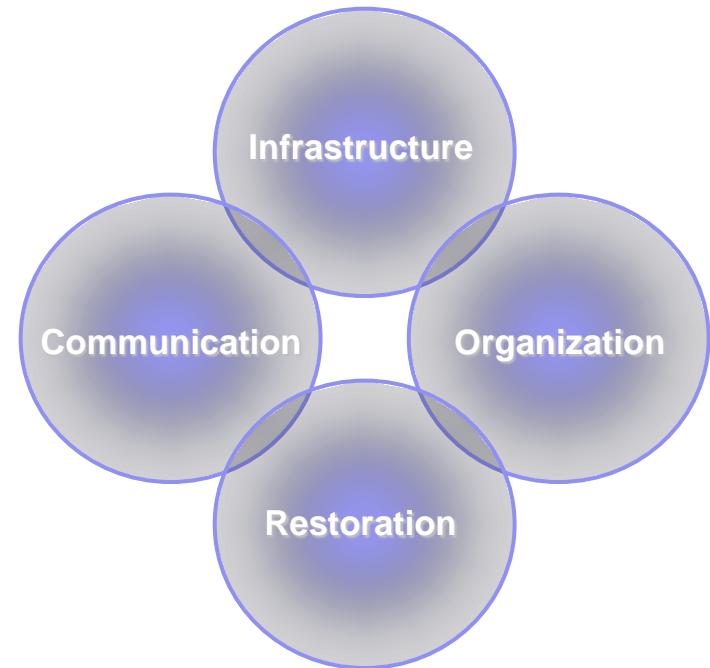
Informal Meeting with FPSC Staff 2016 Hurricane Season Preparation

March 30, 2016

Preparations

FPL's Hurricane Preparedness Plan

- **Continue to strengthen the infrastructure**
- **Prepare the storm organization**
- **Refine the restoration plan**
- **Communicate Communicate**

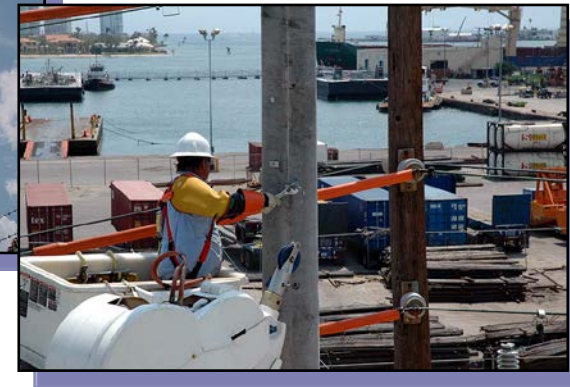


Continue to Strengthen the Infrastructure

Distribution Hardening

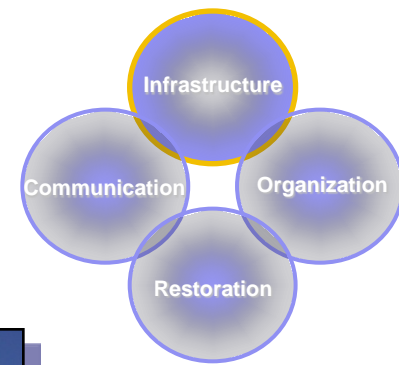


- Complete CIF/Community Projects
- Initiate “Wind Zone” and “Geographic” hardening
- Initiate lateral hardening



Continue to Strengthen the Infrastructure

Transmission Hardening

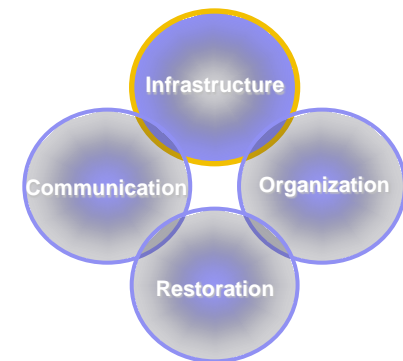


- **CPOC replacement and storm surge/flood initiatives complete**
- **Continue to replace all wood structures**

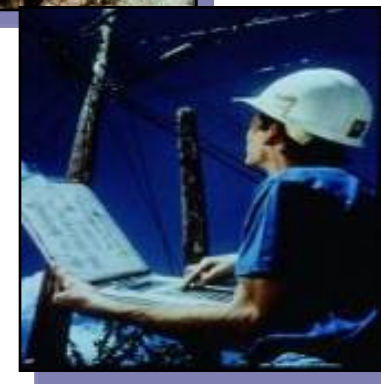


Continue to Strengthen the Infrastructure

Distribution Pole Inspections

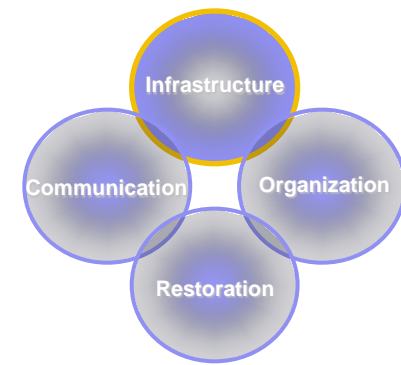


- 1.2 million FPL poles
- Inspect 150,000 poles annually
- Complete follow-up work



Continue to Strengthen the Infrastructure

Transmission Pole Inspections

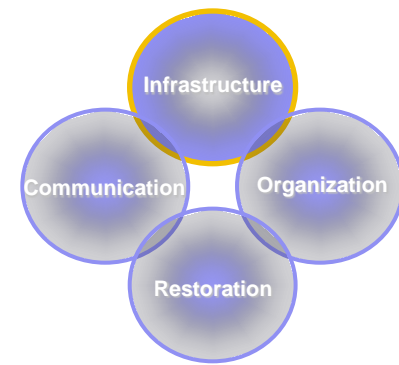


- **65,000 structures**
- **Visually inspect 100% annually; complete climbing/bucket truck cycle inspections and follow-up work**
- **Inspect key facilities (500kV/CIF) before storm season**

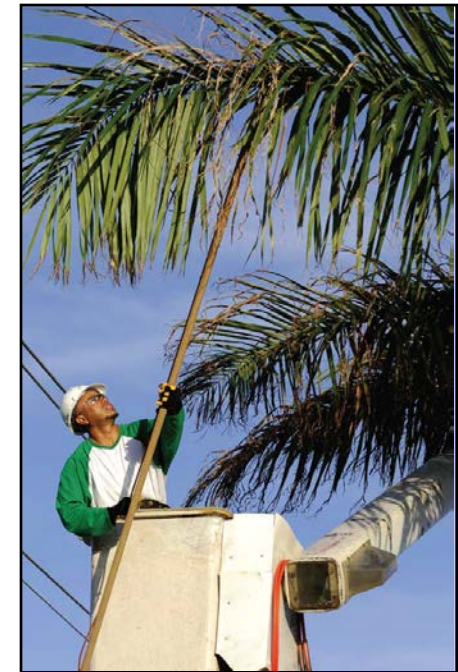


Continue to Strengthen the Infrastructure

Distribution Vegetation Management

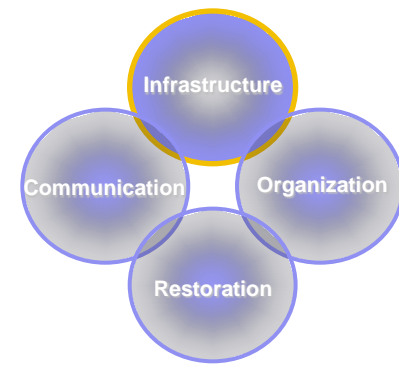


- Trim 15,000 miles annually
 - Feeders (3-year average cycle)
 - Laterals (6-year average cycle)
 - Mid-cycle trimming
- Trim CIF before storm season
- Encourage “Right Tree - Right Place”



Continue to Strengthen the Infrastructure

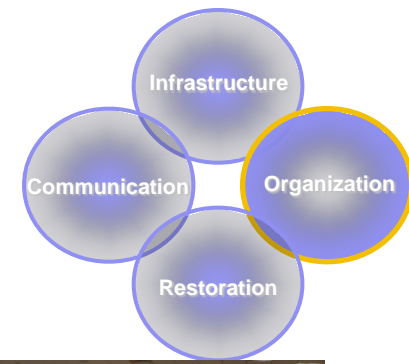
Transmission Vegetation Management



- Inspect / clear 100% of ROW annually



Prepare the Storm Organization



Annual Preparations

- **Identify/staff storm roles**
- **Train**
 - 4 regional staging site exercises
 - Annual company-wide “dry run” event
- **Forensic teams ready**



Refine the Restoration Plan



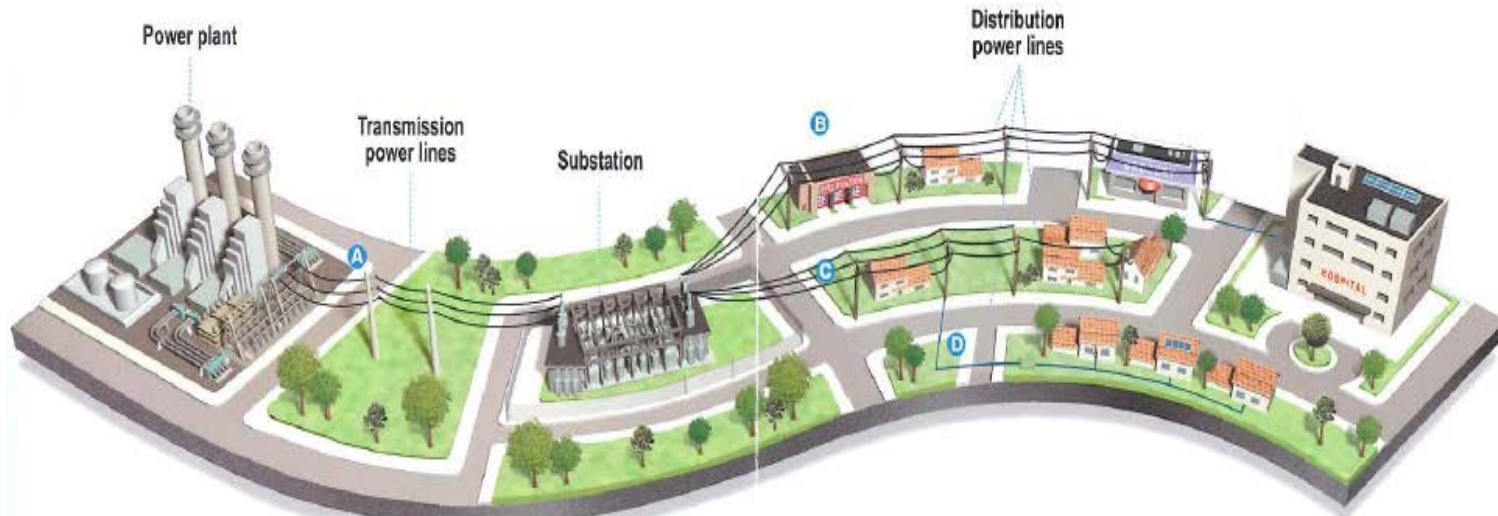
- **Safely restore in shortest time**
 - **How we restore and prioritize restoration**



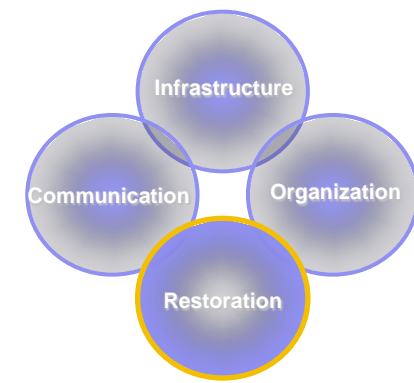
How We Restore Power

Guiding principle – Safely restore power to the largest number of customers as quickly as possible.

- First – Repair damaged power plants, transmission lines and substations;
- Simultaneously, restore power to CIF (e.g., hospitals, police/fire stations);
- Also, restore service to the largest number of customers in the shortest amount of time , including key community needs (e.g., grocery stores, pharmacies, gas stations); and
- Once larger/key repairs have been made, restore service to smaller groups /neighborhoods, converging on the hardest hit area(s), until all customers are restored .

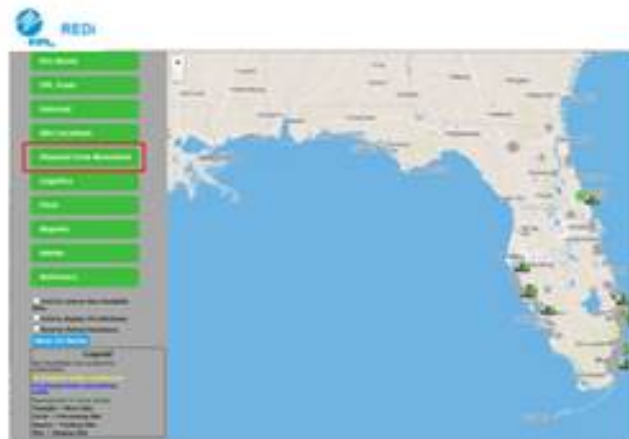


Refine the Restoration Plan

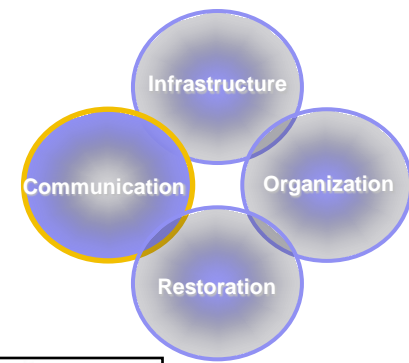


- **Resource plans in place**

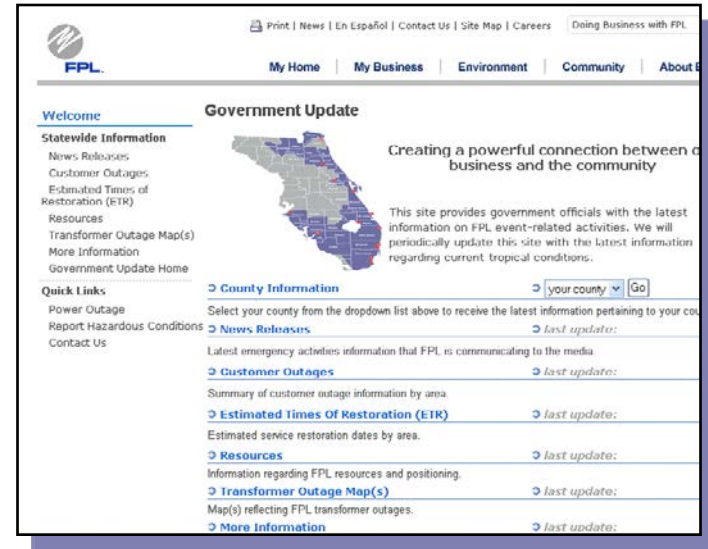
- **Logistics**
- **Mutual assistance/contract crews**
- **Increased inventory levels**
- **Increased use of new technologies for mobile damage assessment and situational awareness.**



Enhance Communications



- Annual FPL / County EOC meetings
- Governmental & community communications

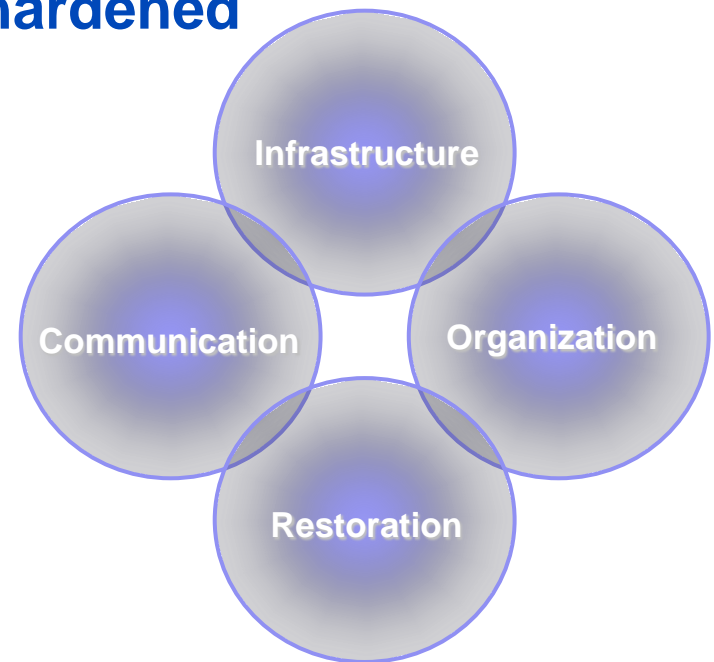


Assistance Provided to Other Utilities

- **None in 2015**

Potential Issues with a 2016 Storm

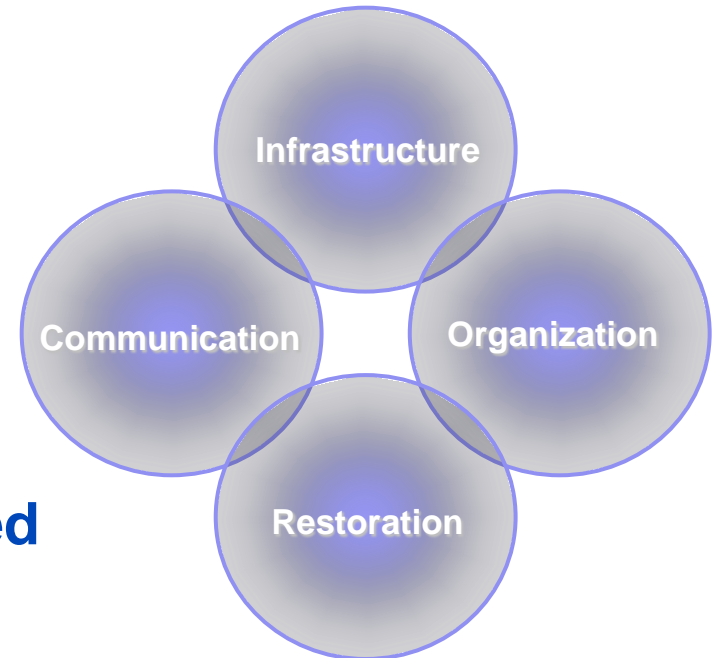
- **Facilities impacted not yet storm-hardened**
- **Multiple storms**
- **Catastrophic storms**
- **Resources unavailable**



Hurricane Preparedness Plan

Summary

- **Infrastructure strengthened**
 - **Hardening; Pole inspections; Vegetation management**
- **Organization prepared**
 - **Trained / ready**
- **Restoration plan tested & refined**
 - **Lessons learned; Technology; Forensics**
- **Communications improved/ready**



Hardening and Storm Preparedness Progress / Plans

FPL HARDENING AND STORM PREPAREDNESS PROGRESS/PLANS			
DISTRIBUTION POLE INSPECTIONS			
	2015	2014-2015⁽¹⁾	2016 Plan
# poles on system beginning of period	1,163,099	1,160,848 ⁽²⁾	1,168,532
# wood inspected	133,243	266,815	133,363
# non-wood inspected	18,436	31,189	11,887
Total # inspected - all pole types	151,679	298,004	145,250
# replaced	9,116	18,788	TBD
⁽¹⁾ Current 8-year inspection cycle began 2014, ⁽²⁾ Current 8-year inspection cycle target			
TRANSMISSION POLE/STRUCTURE INSPECTIONS (SPI#3)			
	2015	2012-2015	2016 Plan
<i>Wood Poles/Structures</i>			
# poles/structures on system beginning of period	11,550	15,542 ⁽³⁾	9,662
# ground level visual inspections	100%	100%	100%
# detailed climbing/bucket inspections	2,294	10,294	1/6
# replaced	1,888	16,665	TBD
<i>Concrete and Steel Poles/Structures</i>			
# poles/structures on system beginning of period	53,005	49,667	55,697
# ground level visual inspections	100%	100%	100%
⁽³⁾ 2nd 6-year cycle began 2012			
DISTRIBUTION SYSTEM HARDENING			
	2015	2006-2015	2016 Plan
# CIF projects (EWL)	43	421	91
# Community Projects	16	126	17
# Geographic/Windzone Feeder Projects ⁽⁴⁾	5	5	13
# '01' switches	16	270	16
Flood/Surge mitigation (# vaults) ⁽⁵⁾	6	12	
⁽⁴⁾ Projects began 2015, ⁽⁵⁾ Downtown Miami Network vaults completed in 2015			
TRANSMISSION HARDENING (SPI#4)			
	2015	2006-2015	2016 Plan
# wood poles/structures on system beginning of period	11,550	26,147	9,662
# wood poles/structures replaced	1,888	16,665	1,400-1,800
Ceramic Post Insulators replaced (# structures) ⁽⁶⁾	0	5,621	0
Flood/Surge Monitors (# substations) ⁽⁶⁾	0	222	0
⁽⁶⁾ Completed in 2015			
VEGETATION MANAGEMENT (SPI #1)			
	2015	Current Cycle	2016 Plan
# system feeder miles to clear in current 3-yr cycle	13,554 ⁽⁷⁾	13,554 ⁽⁷⁾	13,417 ⁽⁸⁾
# feeder miles cleared	4,209	13,095	4,427
# mid-cycle feeder miles cleared	7,218	21,562	7,100
# system lateral miles to clear in current 6-yr cycle ⁽⁹⁾	22,722	22,722	22,722
# lateral miles cleared	3,817	11,626	3,800
Total # miles cleared	15,244	136,695 ⁽¹⁰⁾	15,327
# trees removed	20,000	105,000 ⁽¹¹⁾	TBD
⁽⁷⁾ Cycle completed 2015, ⁽⁸⁾ New cycle began 2016, ⁽⁹⁾ Cycle began 2013, ⁽¹⁰⁾ # since 2006, ⁽¹¹⁾ # since 2010			

