



FPL

Hurricane Season 2004

Responding to statewide disasters

Overview

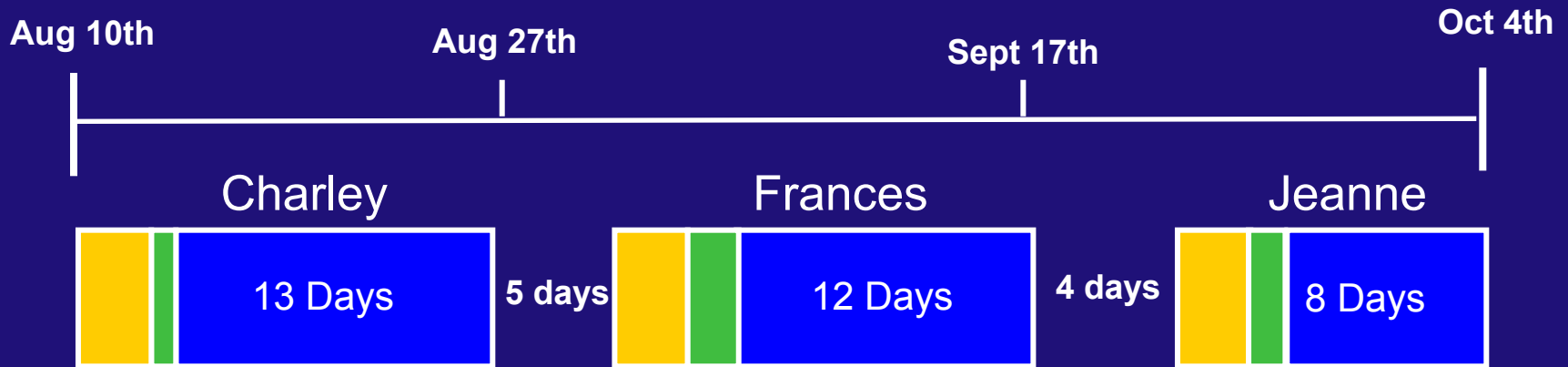
- Summary of hurricane season
- Impact to FPL's service territory
- Preparation
- Execution and performance



Hurricane Frances - NOAA

A 56-day Storm Schedule

(for illustrative purposes)



72 Hour Preparation



Storm Impact

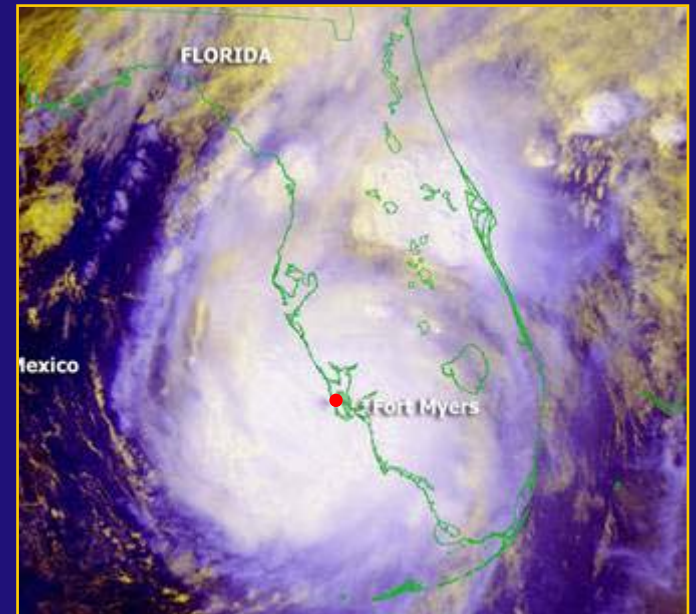


Restoration Period



Hurricane Charley

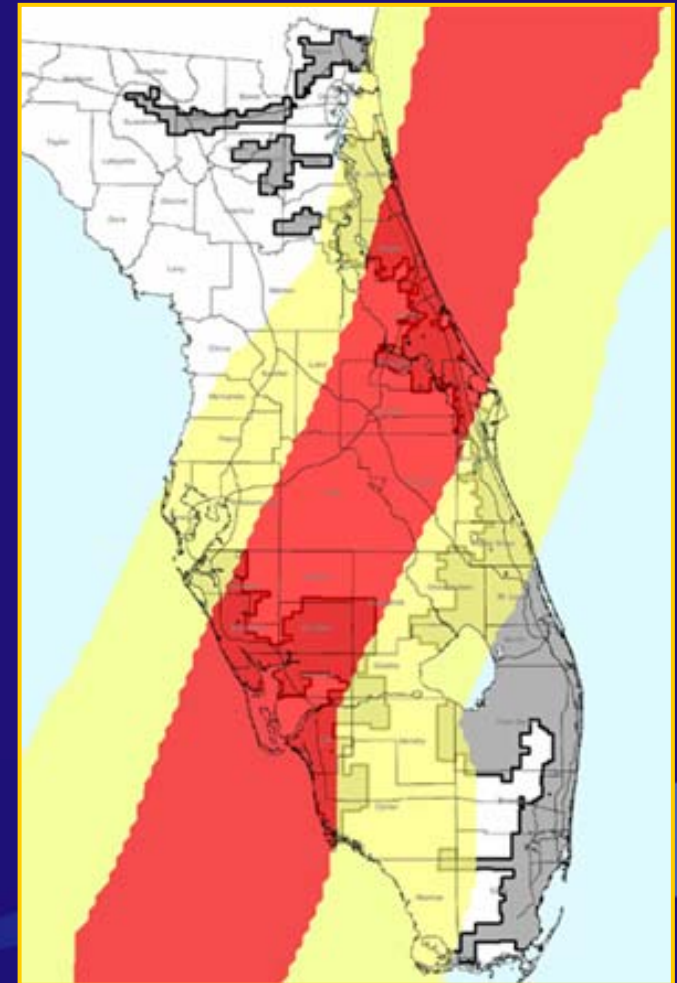
- Landfall: Punta Gorda
August 13, 2004
- Wind speed 140 mph
Category 4
- 22 counties affected



NOAA

Hurricane Charley

- Hurricane force winds over 60 mile-wide corridor
- Tropical storm force winds over 210 mile-wide corridor
- Quick-moving storm
 - 20 hours of impact
- Damage severe but localized
- Entered & exited state in FPL territory



■ Hurricane force winds

■ Tropical storm force winds

Hurricane Charley leaves 874,000 customers without power



Port Charlotte



Port Charlotte



Rt. 17 to Arcadia



Punta Gorda

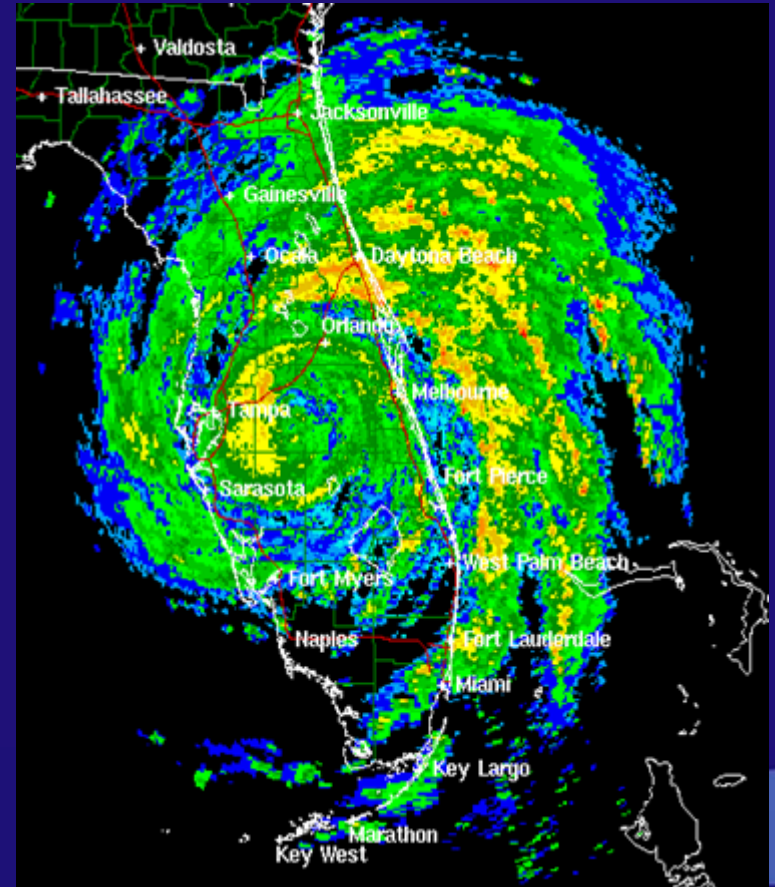


Staging Site at
Sanford Airport



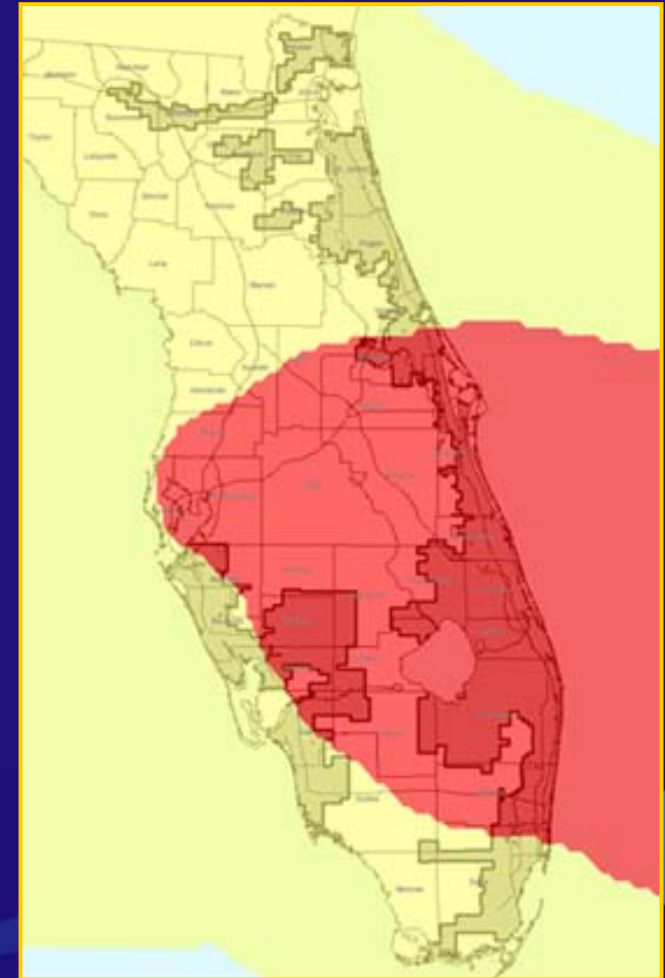
Hurricane Frances

- 24 days after Hurricane Charley
- Landfall: Stuart, FL
September 5, 2004
- Wind speed over 105 mph
Category 2
- Massive storm that covered entire state
- 35 counties affected, covering 27,000 sq. miles



Hurricane Frances

- Devastating hurricane force winds over 145 mile-wide corridor
- Damaging tropical storm force winds over 345 mile-wide corridor
- Effects intensified by slow movement
 - 60 hours of impact



- Hurricane force winds
- Tropical storm force winds

Hurricane Frances leaves nearly 2.8 million customers without power



Boynton Beach



Boynton Beach



Stuart



Stuart



South Florida
Fairgrounds



Hurricane Jeanne

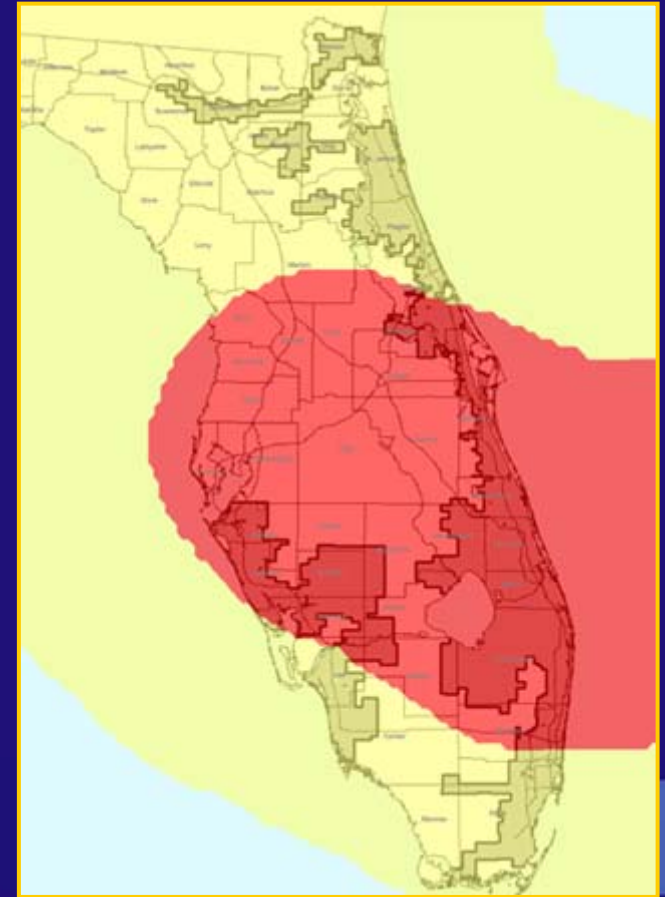
- 21 days after Hurricane Frances
- Landfall: Stuart, FL
September 25, 2004
- Wind speed 125 mph
Category 3
- 35 counties affected
- Affected areas already
damaged by Frances



Hurricane Jeanne - National Weather Service

Hurricane Jeanne

- Hurricane force winds over 125 mile-wide corridor
- Tropical storm force winds over 315 mile-wide corridor
- Movement 12 mph – twice the speed of Frances



- Hurricane force winds
- Tropical storm force winds

Hurricane Jeanne leaves 1.7 million customers without power



Beeline Highway



North County Airport



Hutchinson Island



Jupiter Farms



Jupiter Farms





FPL

Impact to FPL's territory

Widespread outages stretch restoration resources

AREA	# CUSTOMERS		
	CHARLEY	FRANCES	JEANNE
Miami-Dade	45,000	423,400	25,100
Broward	40,000	590,600	173,000
Palm Beach	40,000	660,000	591,300
Treasure Coast	9,000	245,600	250,900
West Coast	445,000	248,800	226,700
Central FL	274,000	500,200	380,300
North FL	21,000	117,700	90,100
TOTAL	874,000	2,786,300	1,737,400



Every Storm is Different

CHARACTERIZATION

	CHARLEY	FRANCES	JEANNE
Customers affected	874,000	2,786,300	1,737,400
Counties impacted	22	35	35
Hours of impact	20	60	45
Width of hurricane force winds	60	145	125
Width of tropical force winds	210	345	315
MPH maximum sustained winds at landfall	140	105	120

Approximate Damage to Infrastructure

	CHARLEY	FRANCES	JEANNE
Fossil power plants*	3	7	6
Nuclear power plants**	0	0	1
Substations	13	50	30
Conductor (miles)	950	730	330
Transformers	5,600	3,310	2,620
Poles	7,100	3,740	2,540



* Represents power unit impact, forced offline

** Plant taken offline, represents damage to overall facility



FPL

Our preparation

Technology and expertise

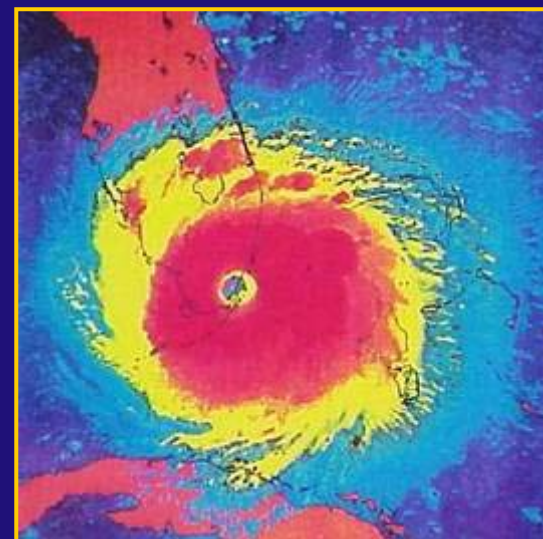
- Knowledgeable and experienced workforce
- Proven storm model with predictive capabilities
- On-staff meteorologist
- Edison Electric Institute Emergency Response Awards
 - (1999) Hurricane Irene
 - (2003) Hurricane Isabel (assistance)



EELI's Emergency Response Award

Recent Experience

- Major hurricanes
 - Andrew (1992 – Category 5)
 - Floyd (1999)
 - Irene (1999)
- Continuous improvements made



Hurricane Andrew 1992



Practice

- Company-wide annual dry run
 - Test storm model and field response to disaster plan
 - Test new ideas, technologies, and process improvements
 - Mobile Command Center



FPL's Mobile
Command Center

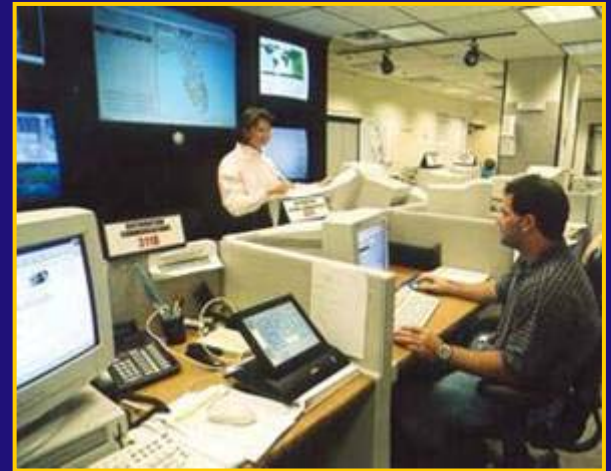


FPL

Execution and Performance

Getting ready for landfall

- 72 hours before storm landfall:
 - Command Center activated and storm organization alerted
 - Logistics plans initiated
 - On-hand inventory levels increased; vendors/suppliers placed on alert
 - Staging sites pre-identified
 - State & County emergency centers contacted
 - External utilities/contractors contacted



Preparation Begins Days Before Hurricane Landfall

- 48 hours before storm landfall:
 - Computer models predict system damage, and initial restoration plan and resource requirements forecasted
 - Commitments sought for support
 - Personnel
 - Materials
 - Logistics support
 - Travel teams are identified
 - Employees begin to prepare their families and homes
 - HR communicates employee support plan



Getting Ready for Landfall

- 24 hours before storm landfall:
 - Equipment and facilities pre-checked
 - IM pre-checks systems
 - External resource personnel are pre-staged out of harm's way
 - Mobile inventory storerooms readied
 - Rapid deployment trailers readied
 - Media messages delivered
 - Safety & preparation for extended outages
 - Implement emergency contact procedures for all employees



Approximate Peak Resources

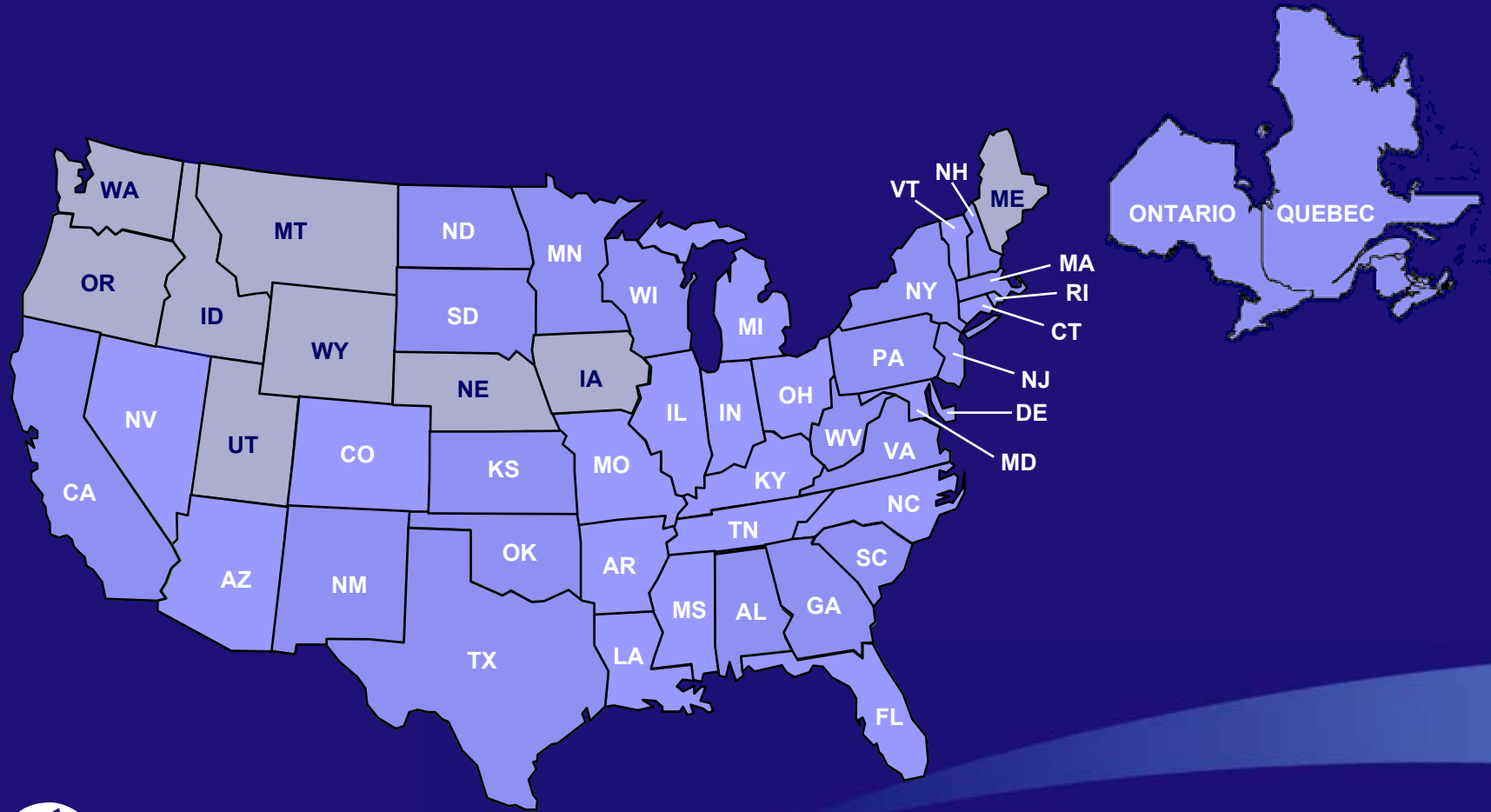
	CHARLEY	FRANCES	JEANNE
FPL*	5,200	8,700	8,600
Contractors/Utilities**	6,000	8,000	7,900
TOTAL	11,200	16,700	16,500



* Includes embedded contractors

** Line, tree and other

Partnering Crews Came from 39 States & Canada



A mammoth logistical challenge

- 13 staging sites established *
- Locations ranged from St. Augustine to Miami
- Supplemented with FPL service centers
- Crews assigned to other sites when completing work in initial area of deployment



Boynton Beach Mall Staging Site



Daytona Speedway



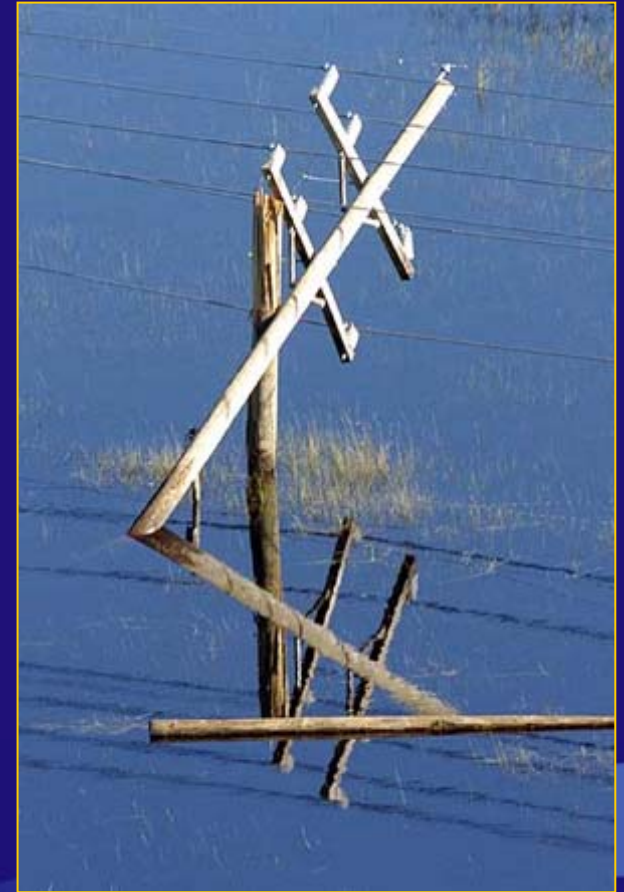
* Some staging sites used for more than one storm.

Logistics Summary

	Staging Sites	Meals served (/day)	Gallons fuel (/day)	Trucks
Charley	13	30,000	156,000	7,000
Frances	12	44,000	202,000	8,100
Jeanne	13	42,000	183,000	7,300

Assessment required before finalizing restoration plan

- Account for all employees
- Initial damage assessments
 - Aerial patrols
 - Ground patrols

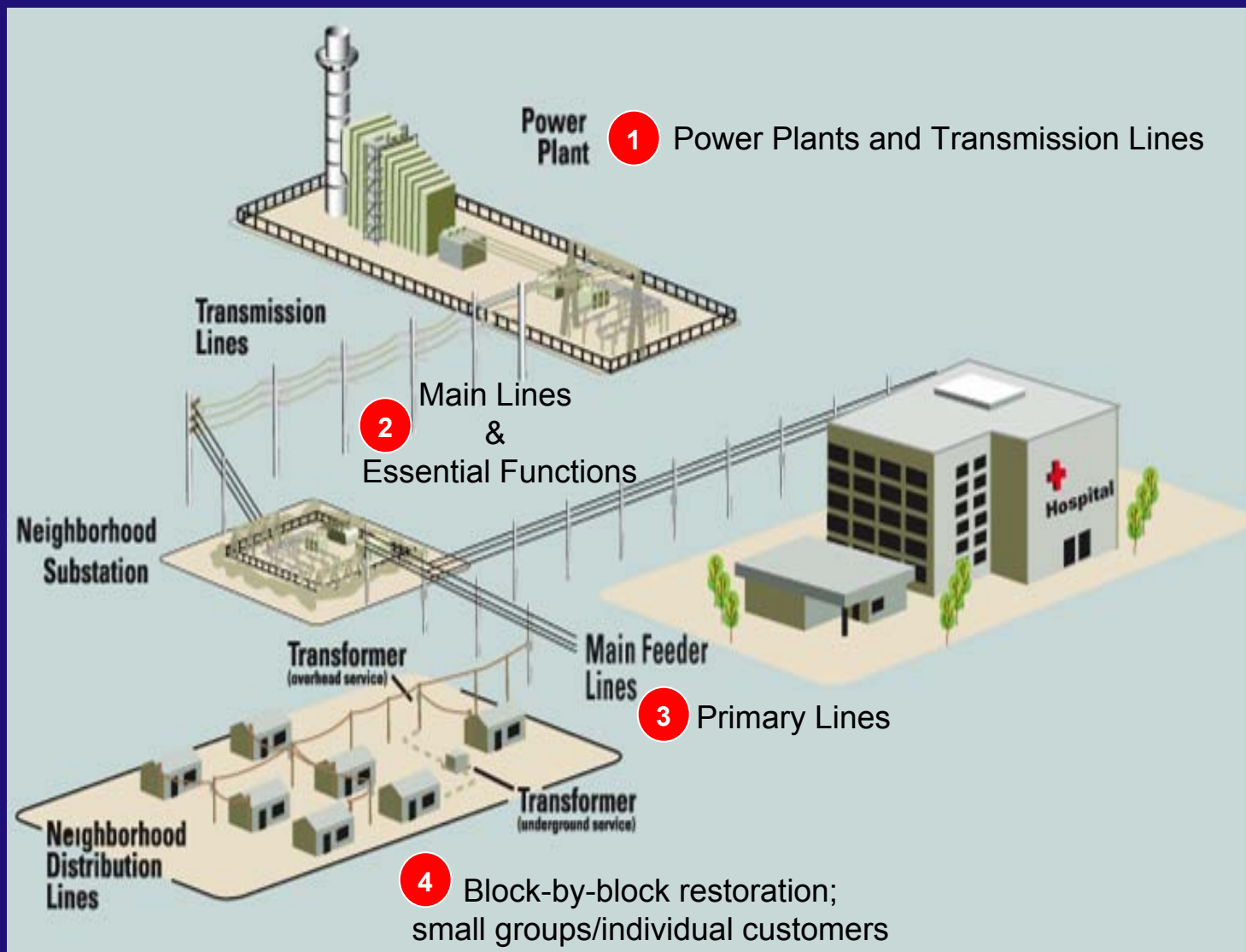


A fair and efficient restoration process

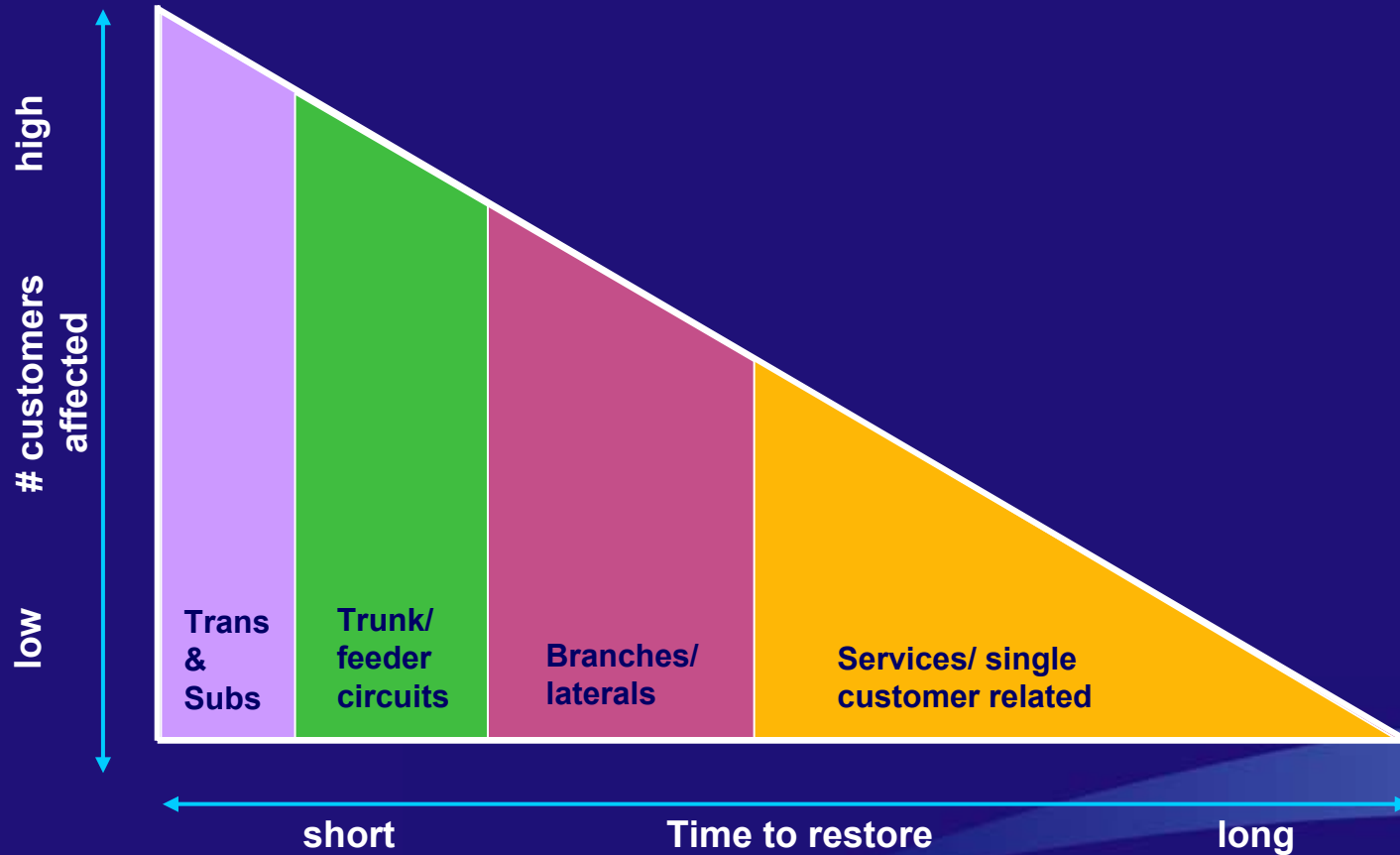


- Restoring power to the greatest number of customers in the shortest time possible and providing priority restoration to functions essential to the health and safety of communities

Restoration process



Restoration Priority (illustrative)



Essential Functions

Major Classifications

Essential Functions

- Hospitals
- Public service entities
 - Emergency operations centers
 - Critical city buildings/facilities
 - Red Cross facilities
- Communications
 - Police/fire, telephone, media
- Water/sewage
- Transportation
- Gas supply utilities
- FPL critical facilities

Other Priority Customers

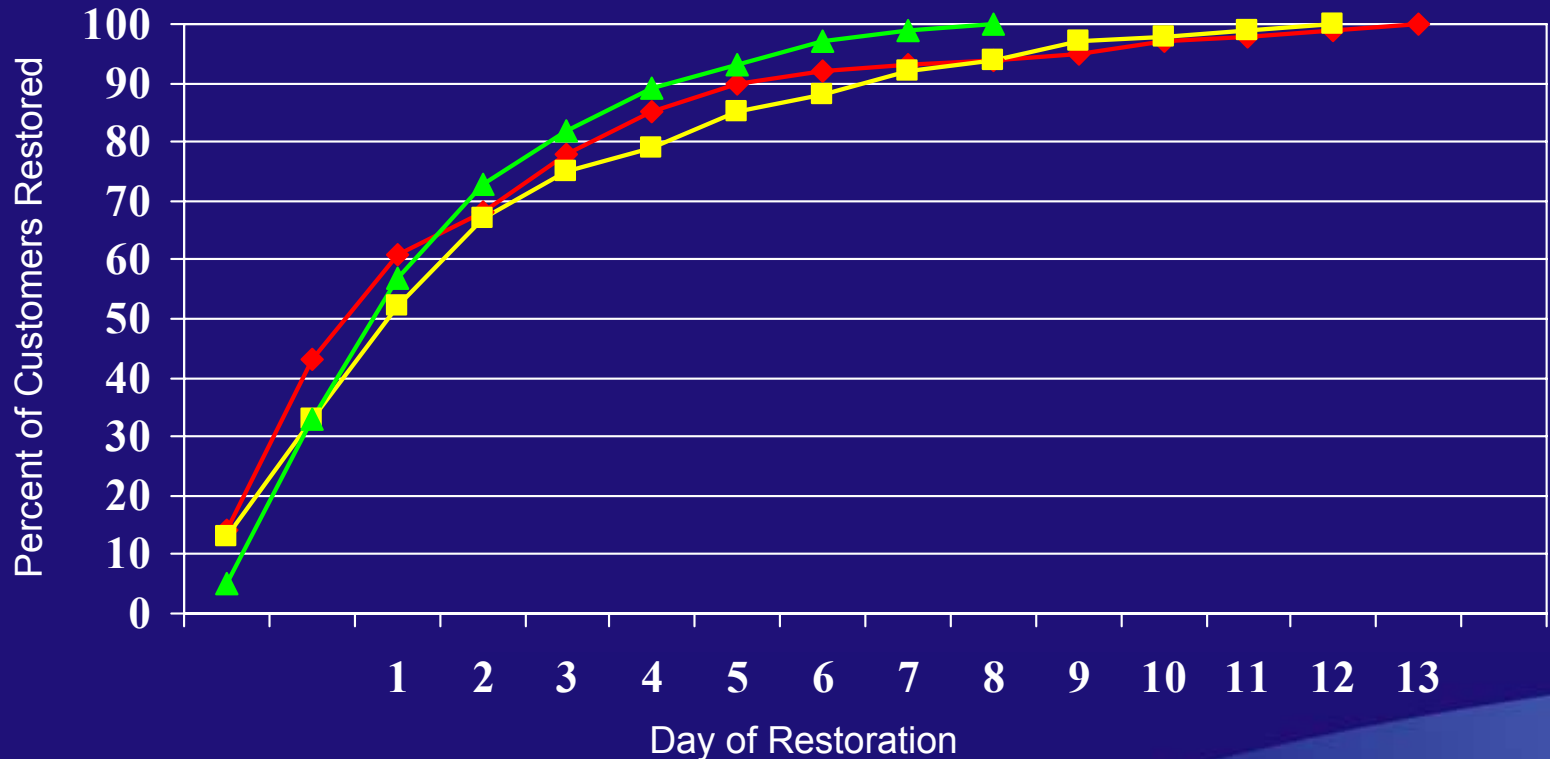
- Schools
- Nursing homes
- Critical care facilities



Factors Driving Restoration Time

- Path of storm
- Intensity of storm
- Speed of the storm
- Available resources

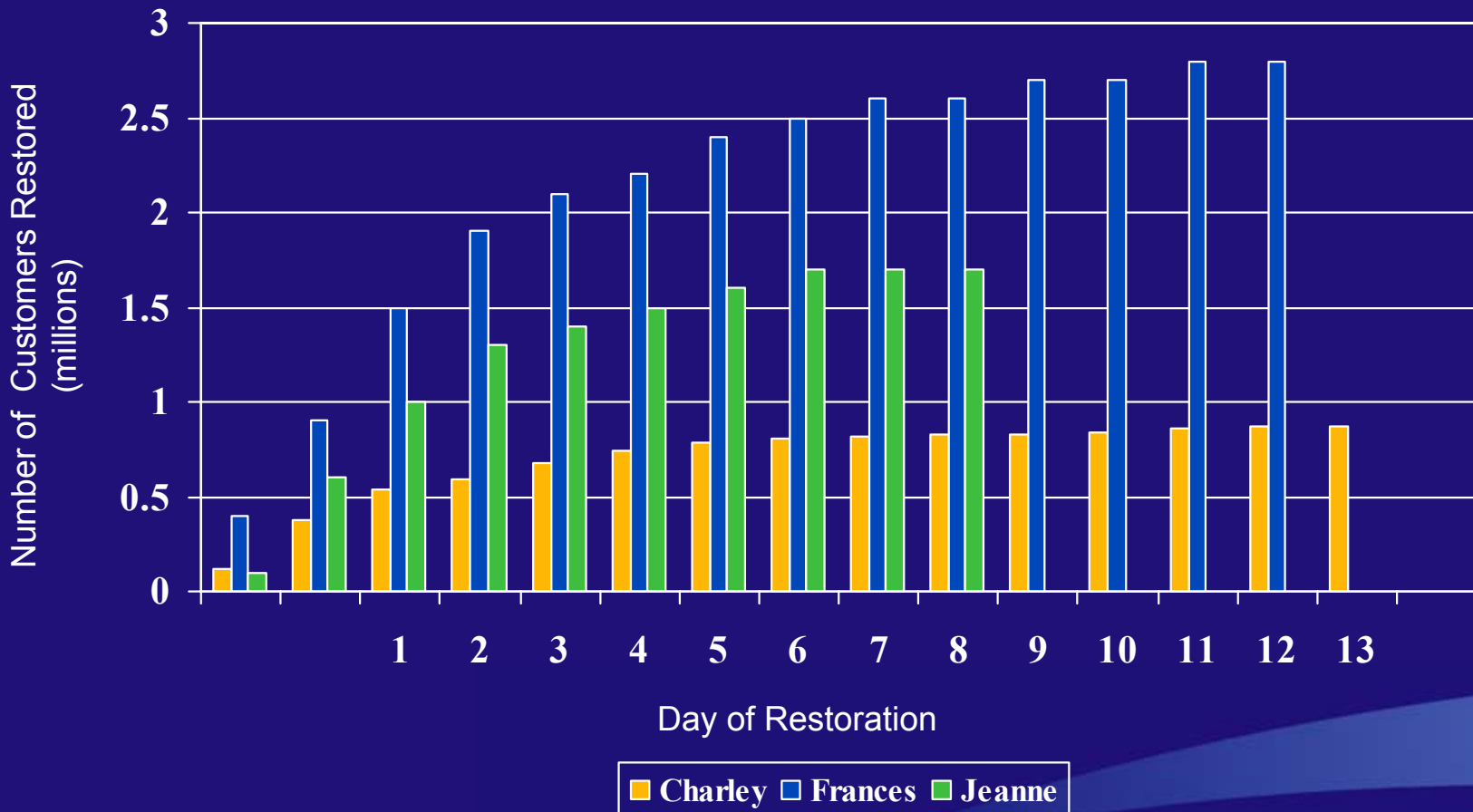
Cumulative Percent Restored By Storm



◆ Charley ■ Frances ▲ Jeanne



Cumulative Customers Restored By Storm



Historical disaster response by U.S. electric utilities

Storm	Category	Electric Utility	Customers Affected	Days restoration completed
Andrew ('92)	5	FPL	1,400,000	37
Charley ('04)	4	FPL	874,000	13
Floyd ('99)	4	FPL	600,000	3.5
Hugo ('89)	4	Duke	690,000	14
Jeanne ('04)	3	FPL	1,737,400	8
Ivan ('04)	3	Gulf Power	364,500	13
Fran ('96)	3	Dominion	415,000	7
Fran ('96)	3	Duke	145,000	7
Frances ('04)	2	FPL	2,786,300	12
Isabel ('03)	2	Dominion	1,800,000	14
Irene ('99)	1	FPL	1,700,000	4



Conclusion

- We prepared with a well-proven restoration plan
- Our restoration process is efficient and fair
- We seek continuous improvement
- We welcome dialogue with communities and customers on improvement opportunities
 - Collaborative emergency plans
 - Preventive measures

