



# 2010 HURRICANE SEASON PREPARATION BRIEFING

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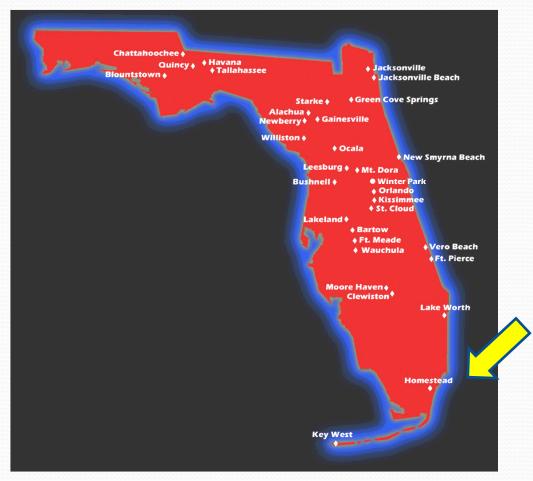


### Today's Presentation

- System Overview
- Hurricane Experience
- Storm Hardening Preparation
- Emergency Operations
- Emergency Response
- Other Features

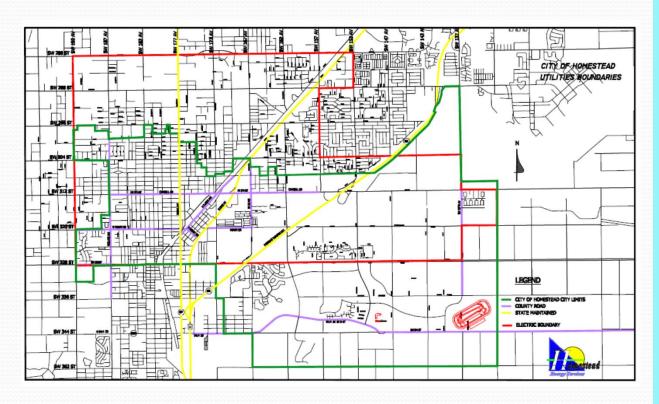


### System Overview - Who We Are





### System Overview - HES



#### Located in Miami-Dade County

- 14.4 Square Miles
- 1 Power Plant
  - 16 Dual Fuel Generators
  - Peak Capacity of 45 MW
  - HES Plant Covers 10% of load
  - Ownership in Off-site Plants = 47%
  - Long-Term Contracts = 34%
- 4 Transmission Lines
  - 10 miles of line
  - 135 poles
- 1 Transmission Substation
- 4 Distribution Substations
- 19 Main Feeder Circuits
  - 167 miles of line
  - 6,100 poles
  - 66% Overhead
  - 34% Underground
- 21,500 Customers



### **Hurricane Experience**

- History of working at home as well as assisting other utilities:
  - ➤ Andrew 1992 Local hit "The Big One"
  - ➤ Georges 1998 Local hit
  - Charlie 2004 Support to Wauchula
  - > Katrina 2005 Local hit
  - > Rita 2005 Local hit
  - ➤ Wilma 2005 Local hit
  - Next?: We are prepared and willing to help



## Storm Preparation: System Design & Hardening Standards



- Reliability Program
  - Identify and Replace System Components Approaching End of Life including Substation Equipment
  - Correct Outage Drivers on Feeders with High Incidence of Interruptions
  - Partner with Procurement to Purchase Best Technology, Materials and Equipment
- Pole Inspection program
  - 8 Year Cycle
  - 2 Years of Inspections completed
  - All Priority Deteriorated Poles Replaced
- Harden all new and replacement Feeder and Lateral poles
- Design for placing facilities underground along major arterials
- Underground first run of feeder sections out of the substation



## Storm Preparation: System Design & Hardening Standards



- Vegetation Management Cycle
  - Distribution: 2 Year Trim Cycle
  - Transmission: 3 Year Trim Cycle
- Thermovision
  - Perform Annual inspections on Distribution, Substation and Transmission facilities
  - Address all Hot Spots
- Increased Material Inventory
- Construction Standards
  - Build to NESC 150 mph wind contour
  - Utilize Extreme Wind Loading Standards
  - Front lot line construction
  - 90% of new distribution construction underground
  - All new transmission poles, or scheduled replacements, are concrete
  - Ensure "foreign" utility attachments meet HES design standards

### **Emergency Operations**



- Integration into City of Homestead Incident Management Plan
  - National Incident Management System (NIMS)
  - Incident Command System (ICS)
  - Utilize Area Command Concept for Operations
  - Electric Utility liaisons @ City Emergency Operations Center (EOC)
  - Restoration managed through Electric Utility Control Center
- Yearly Review of City and Electric Utility Hurricane and Emergency Response Procedures
  - Procedures Updated as Needed
  - Storm Assignments Reviewed
  - Training/Refresher Conducted for Electric Utility Personnel on Processes
  - Critical Customer List Reviewed and Updated
- Patrol of Assigned Feeders
  - Problems Identified and Corrected Prior to Storm Season

### Emergency Response



- Call In Number in Place for Assessing Employee Availability
- Safety Focus
  - Discussions and Process Review with HES Crews and Support Personnel
  - Discussions with Mutual Aid Crews
- Equipment and Crew Preparations per Plan put in motion
- Storm Assignments developed depending on forecast severity
  - Assessment Teams
  - Crew Assignments
  - EOC Liaisons
- Restoration Priorities Established
  - Hazards
  - Critical Customers
  - Circuits with Most Customers Served
  - Circuits with Lesser Damages
  - EOC Directives

### Emergency Response



- Customer Service
  - Processes for Customer Status Updates Reviewed
- Schedules and Work Locations Established
- Mutual Aid Agreements Utilized
  - Florida Municipal Electric Association
    - o Florida Municipal Utilities
  - American Public Power Association
    - National Municipal Utilities
  - Florida Electric Coordinating Group
    - o Florida Municipal, IOU and Cooperative Utilities

#### Other Features



- Restoration Progress tracked in Storm Restoration Room
  - Dynamic Board using GIS Information
  - Progress Regularly Communicated to:
    - o EOC
    - Customer Service
    - o Customers via Multiple Media Outlets
  - Electrical Restoration managed through Electric Utility Control Center
- Back Up Call Center
- Logistical Support through the City
  - ✓ Meals
  - ✓ Lodging
  - ✓ Laundry
- Excellent Coordination and Communication with Other City Departments
  - Police / Traffic Control
  - Fire / Hazard Calls
  - Water and Sewer / Lift Stations
  - Elected Officials