2010 HURRICANE SEASON PREPARATION BRIEFING

PSC Workshop
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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

[Map of Florida with cities marked, including Homestead]
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
    - Florida Municipal Utilities
  - American Public Power Association
    - National Municipal Utilities
  - Florida Electric Coordinating Group
    - 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
    o 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
  o Police / Traffic Control
  o Fire / Hazard Calls
  o Water and Sewer / Lift Stations
  o Elected Officials