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From: S. Denise Hill [dhill@publicpower.com]
Sent: Wednesday, May 31, 2006 2:22 PM
To: Filings@psc.state.fl.us
Subject: FPUA Storm Preparedness Implementation Plan

Attachments: FPUA Storm Preparedness Implementation Plan FINAL 0406.doc



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Dear Sir/Madam,

Attached is the Implementation Plan for Ongoing Storm Preparedness for the Fort Pierce Utilities Authority.

Thank you,

Denise

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**STORM PREPAREDNESS IMPLEMENTATION PLAN
FORT PIERCE UTILITIES AUTHORITY
JUNE 1, 2006**

A. Introduction

This report provides responses to specific questions related to the ongoing efforts of the Fort Pierce Utilities Authority to prepare for severe weather events such as hurricanes. FPUA operates generation, transmission, substation and distribution facilities currently serving approximately 26,500 customers in Saint Lucie County.

During 2004, FPUA was impacted by two major hurricanes.

Hurricane Frances: During Saturday night, September 4, all of FPUA's twenty-eight feeders locked out affecting all customers. Restoration efforts commenced Sunday September 5 and continued until September 17, 2004 as the last few customers completed repairs and could receive electric service.

Hurricane Jeanne: During Sunday, September 26, twenty-seven of FPUA's twenty-eight feeders locked out affecting approximately 25,000 customers. Restoration efforts were essentially completed on Monday October 4, 2004.

During 2005, Hurricane Wilma impacted FPUA.

Hurricane Wilma: During Monday, October 24, twenty-six of FPUA's twenty-eight feeders locked out affecting approximately 24,000 customers. Restoration efforts began Monday afternoon and were essentially done by the evening of Thursday October 27, 2005.

FPUA has used the experience from these events to continually evaluate, modify and improve all aspects of our planning, preparation and response to major storm events.

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B. Vegetation Management Cycle

Fort Pierce Utilities Authority maintains a three (3) year cycle for inspecting and trimming all distribution feeder circuits. We have also implemented testing of increased use of tree growth retardants (TGRs) in selected areas.

The Transmission facilities are inspected on a bi-annual basis and trimmed to provide National Electric Safety Code requirements for horizontal clearances to all transmission lines.

C. Transmission and Distribution Geographic Information System

The Fort Pierce Utilities Authority is transitioning from an AutoCAD/Gentry mapping system to an ESRI ArcGIS system based on a simplified version of the ArcGIS Electric Distribution Data Model. At the present time, either system can provide reasonably accurate hard copy maps to assist with restoration efforts. In the next year, a program is to be written to provide customer service representatives with a projected display of the system showing the status of feeders and laterals during a recovery.

D. Wooden Transmission vs. Concrete Transmission Structures

Fort Pierce Utilities Authority's transmission system currently has wood, spun concrete and steel structures. All recent new line additions have been with spun-concrete and/ or steel. We are currently evaluating whether spun-concrete or steel is a better alternative for future wood structure replacements. Our existing wood transmission structures, overall faired well during the three hurricanes we have experienced.

We also recently changed our design criteria to use only class 2 wood poles on our distribution circuits where wood is used.

E. Post-Storm Data Gathering, Data Retention and Forensic Analysis

Fort Pierce Utilities Authority reviews data from major outage events using the same process each month.

In addition, several post mortem meetings were held by the entire storm team to gather information and to critique our performance after each hurricane. The lessons learned were added to our Storm Procedures to strengthen our overall operation.

We have also participated with joint utility storm preparation sessions conducted by the Florida Municipal Electric Association (FMEA) and at various industry conferences such as ones conducted by the American Public Power Association

(APPA). These conferences have allowed us to interact with other state and national utilities to discuss best practices and lessons learned from storm response and restoration efforts.

F. Audit of Joint-Use Pole Attachment Agreements

The Fort Pierce Utilities Authority has retained a nationally known inspection firm to examine all poles, including the notation of foreign attachments and issues arising from those attachments. This inspection is being conducted in the current calendar year.

The Fort Pierce Utilities Authority has retained an engineering consultant to review and develop construction standards to ensure Authority overhead distribution systems with foreign attachments built to those standards can withstand a Category 3 hurricane. The standards, once completed, will be applied to the system to identify non-conforming structures.

G. Six-year transmission Inspection Program

Transmission poles are inspected annually. Wood poles are sound & bore tested and concrete/steel poles are visually inspected.

These inspections include looking at insulators for signs of arcing, tracking, discoloration, bird droppings etc. Every third year inspections were also conducted of line hardware for wear and potential failure.

H. Collection of Outage Data Differentiating Between the Reliability Performance of Overhead and Underground Systems

Although we do track all outages via our Outage Management System, we do not currently calculate reliability indices for overhead vs. underground. However, the data is readily available and could in the future be calculated and evaluated rather easily.

I. Coordination with Local Governments

We do not coordinate with city/county governments with regard to vegetation management outside of compliance with local tree removal ordinances when applicable. To date we have a good working relationship with these agencies that enables us to conduct both routine and emergency vegetation management without prior agency permits or approvals. We do participate in the development review process for all new developments in both the City and County. We do use the process to point out any potential problems that we can identify with regard to vegetation

being planted too close to the power lines. All new developments require underground utilities.

With regard to storm preparedness/recovery, we are active participants in the local emergency operations centers (EOC) for the County. If the EOC is activated, a FPUA representative is stationed at the EOC after the storm during the recovery period. This person provides a direct contact between the EOC, other response agencies and FPUA.

J. Collaborative Research Through PURC

Through Fort Pierce Utilities Authorities membership in the Florida Municipal Electric Association and its interaction with PURC, FPUA is involved in PURC activities related to storm hardening research.