ORIGINAL

Matilda Sanders

From: S. Denise Hill [dhill@publicpower.com]
Sent: Friday, June 02, 2006 8:42 AM
To: Filings@psc.state.fl.us
Subject: Lake Worth Storm Hardening Report

Attachments: Lake Worth Storm Hardening Report.doc

Lake Worth
n Hardening F

Dear Sir/Madam,

Attached is the Implementation Plan for Ongoing Storm Preparedness for the City of Lake Worth

Denise

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STORM PREPAREDNESS IMPLEMENTATION PLAN

CITY OF LAKE WORTH UTILITIES DEPARTMENT

May 31, 2006

A. INTRODUCTION:

The City of Lake Worth is located on the Atlantic coast, south of West Palm Beach, in Palm Beach County.

The City of Lake Worth Utilities (CLWU) serves approximately 27,400 electric customers in a 12.5 square mile service area with approximately half of the area lying within the Lake Worth city limits and the balance in unincorporated Palm Beach County and approximately 1,500 customers in the Village of Palm Springs. The CLWU operates a power plant with generating capacity of approximately 90MW and is a member of the All Requirements Project (ARP) of FMPA. The system peak for 2005 was 100 MW. The transmission system consists of a 138kV 3-mile tie line to the state grid, through FPL, and a 2.5-mile 138kV internal line between our two main substations.

The CLWU was impacted by Hurricane Frances on September 4, 2004 causing all feeders to lock out. Restoration began September 5th with restoration essentially achieved by September 11th.

Hurricane Jeanne struck CLWU on September 26, 2004 affecting all feeders. Restoration was essentially completed by October 5th.

Hurricane Wilma struck the CLWU system on October 24, 2005. Essential restoration was completed by November 9th.

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B. THREE-YEAR VEGETATION MANAGEMENT CYCLE:

CLWU has a two year vegetation management cycle utilizing Asplundh Tree Services on a year around basis.

C. TRANSMISSION AND DISTRIBUTION GEOGRAPHIC INFORMATION SYSTEM:

The CLWU has a GIS system that is operated by our System Operations Division. The system is based on ArcMap 9.0 and the mapping program uses ESRI's Microsoft Access. The base maps are provided by Palm Beach County. Hard copies are provided for specific circuits, designated sectors and/or the entire electrical system.

D. WOODEN TRANSMISSION VS. CONCRETE TRANSMISSION STRUCTURES:

CLWU's transmission system does not utilize any wooden poles. The system has108 pre-stressed concrete square poles that have been in service for over 20 years. All new or replacement transmission poles will be either steel or spun concrete.

E. POST-STORM DATA GATHERING, DATA RETENTION AND FORENSIC ANALYSIS:

CLWU conducted a number of inter-departmental meetings following the last two storm years to evaluate our storm preparedness and response programs and to identify areas for improvement. These meetings produced actions items that we are implementing in the areas of management, operations, communications, and customer service. On an ongoing basis CLWU's System Operations personnel conduct internal reviews of major outages and exchange ideas with the T&D Division in order to improve reliability and coordination during system restoration efforts.

CLWU's SCADA system provides a print-out of alarms/breakers operations and operator initiated actions. The SCADA also provides a sequence of events (SOE) upon request. This data resource can provide the information needed for a forensic analysis

F. AUDIT OF JOINT-USE POLE ATTACHMENT AGREEMENTS:

CLUW is working with an engineering consulting firm, Power Delivery Associates, to develop updated pole attachment agreements with the communications providers that have attachments on CLWU poles. This project will be completed during calendar year 2006.

G. SIX-YEAR TRANSMISSION INSPECTION PROGRAM:

CLWU's transmission system consists of 5.5 circuit miles. CLWU performs, through a contractor, periodic thermo graphic surveys of its transmission and distribution systems. CLWU is formalizing an annual visual inspection of its transmission system and will conduct a complete visual inspection during calendar year 2006.

H. COLLECTION OF OUTAGE DATA DIFFERENTIATING BETWEEN THE RELIABILITY PERFORMANCE OF OVERHEAD AND UNDERGROUND SYSTEMS:

Outage data collection is provided by SCADA print-outs, Operator's Log Book and Telephony Video Database system (TVD). This information is manually compiled on a monthly basis. CLWU is in the process of inputting this data into the standard format used to compute the different reliability ratios used by the industry. Due to our recent SCADA upgrade and TVD installation some of the data was not available in previous years. CLWU does not compare reliability performance between overhead and underground systems at this time.

I. COORDINATION WITH LOCAL GOVERNMENT:

With regard to storm preparedness and recovery, CLWU, though the Utility Director, is an active participant in the Lake Worth Emergency Operations Center (EOC). The CLWU representative is stationed at the EOC throughout the storm/recovery period. This enables direct contact between the EOC, other responding agencies and CLWU. As part of the Lake Worth City Government, CLWU works closely with other City departments in storm planning and restoration activities.

With regard to vegetation management, CLWU coordinates with city/county governments on an as-needed basis.

J. COLLABORATIVE RESEARCH THROUGH THE PUBLIC UTILITY RESEARCH CENTER (PURC) AT THE UNIVERSITY OF FLORIDA:

Through CLWU's membership in the Florida Municipal Electric Association (FMEA) and it's involvement with PURC, the CLWU participates in PURC activities related to storm hardening research.