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From: S. Denise Hill [dhill@publicpower.com]
Sent: Wednesday, May 31, 2006 2:27 PM
To: Filings@psc.state.fl.us
Subject: Leesburg Storm Preparedness Implementation Plan

Attachments: Leesburg Storm Preparedness Implementation Plan.doc

Leesburg Storm Preparedness Im...

Dear Sir/Madam,

Attached is the Implementation Plan for Ongoing Storm Preparedness for the City of Leesburg.

Thank you,

Denise

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STORM PREPAREDNESS IMPLEMENTATION PLAN
City of Leesburg Electric Department
JUNE 1, 2006

A. Introduction

This report provides responses to specific questions related to the ongoing efforts of the City of Leesburg Electric Department to prepare for severe weather events such as hurricanes. Leesburg Electric operates substation and distribution facilities currently serving approximately 21,500 customers in Lake County. Transmission facilities serving Leesburg Electric are operated by Progress Energy.

During 2004, Leesburg was impacted by two major hurricanes.

Hurricane Frances: During Saturday night, September 4, twenty-three of Leesburg's twenty-four feeders locked out. Feeders were restored during the day on Sunday and all feeders were back on Monday, September 6. Restoration efforts continued until September 11, 2004 as the last few customers completed repairs and could receive electric service.

Hurricane Jeanne: During Sunday, September 26, eleven of Leesburg's twenty-four feeders locked out affecting approximately 11,700 customers. Restoration efforts were completed on Wednesday September 30, 2004.

For additional information please contact:

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B. Vegetation Management Cycle

Leesburg has performed a formal vegetation management program using city and contract crews since October 2000. Leesburg currently maintains a 4 year trimming cycle with ten foot clearance from distribution feeders and fused laterals.

Trimming records are not currently maintained in the Geographic Information System (GIS.) We understand the benefits of tracking this work in order to evaluate the effectiveness of the trimming activities and identify areas with frequent vegetation problems. We plan to include vegetation management activities in the GIS within the next three months.

C. Transmission and Distribution Geographic Information System

Leesburg Electric uses an automated ESRI based GIS system. This ESRI based system uses "ArcFM," a utility specific application to track specific attributes for all electric facilities including poles, transformers, protective devices, capacitors, primary and secondary voltage conductors, guy and anchors, street lights, etc. This information is maintained and updated in "Designer," an engineering software application. Designer uses the City's construction unit library along with the GIS features to create work requests. GIS data is continuously updated to reflect current information.

Outage information is evaluated to identify protective devices (i.e. fuses, breakers, feeders) that have experienced multiple outages and appropriate corrective action is taken.

D. Wooden Transmission vs. Concrete Transmission Structures

Leesburg Electric owns only 4 poles supporting transmission facilities. These poles serve as intermediate support transmission drops into steel substation structures. Two of these poles are spun concrete and two are pre-stressed concrete.

During the early 1990s Leesburg Electric system design standards were revised to use pre-stressed concrete poles on all new distribution feeders. Concrete poles have also been used when new major equipment is installed on older wood pole feeders.

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

Leesburg reviews data from major outage events using the same process applied to reviews each month.

Plans will be developed to systematically gather additional evidence (samples and photographs) to aid in more in-depth evaluation of failure mode analysis to determine corrective actions that can be taken to prevent future failures and contingent actions that can be taken to minimize the impact of the failure.

F. Audit of Joint-Use Pole Attachment Agreements

A joint-use pole attachment inventory was completed for the entire electric system during 2005 in conjunction with the collection of GPS points for our GIS. Audits for Joint-Use will be conducted on a 5-year cycle.

Permit requests received from an attaching entity provide attachment heights along with sizes and weights of facilities to be attached. Leesburg Electric engineering personnel review the proposed facilities using "O-Calc," engineering software to provide loading calculations.

G. Six-year transmission Inspection Program

Leesburg Electric has only 4 transmission poles and each pole is observed during routine substation maintenance each week.

During the period from 1996 to 2000, all penta and creosote treated wood distribution poles were inspected by Osmose Utility Services, Inc. and all rejected poles were replaced within a year. A request for proposals (RFP) is currently being prepared with the intent to inspect all wood distribution poles on an eight-year cycle.

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

Leesburg Electric outage data is recorded by system dispatchers in trouble logs and entered into an Excel spreadsheet. This record includes the outage duration, number of customers affected and outage cause. Standard reliability indices are then calculated for the entire system. At the end of each month FMPA collects reliability indices from all member utilities and publishes a report comparing reliability performance.

Each month, Leesburg Electric outage records are also sorted by feeder number and standard reliability indices are calculated again for each feeder. This data is then used to identify problematic outage causes and geographic areas affected. Appropriate investigation is made through data collection and analysis and appropriate corrective action is taken.

Equipment related causes are separated into overhead and underground system failures. All other outages are separated by overhead and underground in the FMPA report.

I. Coordination with Local Governments

As a department of the City of Leesburg, all levels of the electric utility practice a continuous, cooperative and appropriate level of coordination with other units of City government.

J. Collaborative Research through PURC

The City of Leesburg participates in PURC activities related to storm hardening research through membership in the Florida Municipal Electric Association.