Florida Public Service Commission

Critical System Readiness - 2011

Bill May, Director of Cooperative Initiatives
Talquin Electric Cooperative, Inc.
Talquin Water & Wastewater, Inc.

Tallahassee, FL
May, 2011

Talquin Electric Cooperative, Inc.
Talquin Water & Wastewater, Inc.

- Serving Florida’s Capital Region – “Tallahassee”
- 2,600 Square Mile Territory
- 52,523 Active Electric Services
- 20,484 Water Accounts
- Staff of 185
- $140 M Annual Operating Revenues
- Gulf Exposure with ROUTINE EXTREME WEATHER
SYSTEM SUMMARY

- Miles of Energized Line - Total: 4,433
- Miles of Energized Overhead Line: 3,799
- Miles of Energized Underground Line: 557
- Miles of Energized Transmission Line: 77
- Number of Substations: 25
- Number of Active Electric Meters: 52,523
- Number of Services per Mile of Line: 11.8
Challenges of Utility Maintenance in Rural Areas

Construction Standards

- Rural Utilities Services Standards
- National Electric Safety Code Compliance
- Greater Use of NESC Grade B Construction
- Consulting Engineering Firm & FPSC Staff Inspection
- Vegetation Management
Storm Hardening of Cooperative Facilities

• Increased Construction Standards
• Rebuild Lines
• Added Substation to Shorten Feeders
• Secure Pad-Mounted Transformers - Coastal Area URD
• Improving Access to New & Replacement Facilities
• Communications Study & Tower Analysis
• Concrete Poles at Critical Locations

Concrete Poles Used at Critical Junctures
Inspections

- Transmission
- Distribution
- Substations
- Pole Attachments
- Right-of-Way
PRE-STORM PREPARDNESS MEASURES

- Review & Revise Emergency Restoration Plan & Resource Documents
- Secure Pricing & Availability of Outside Contractors
- Training of Back-up Personnel Performing Alternate Duties in Storm Mode
- Inventory & Replenish Storm Stock Inventory
- Service & Fuel Back-Up Generators
- Test Connectivity of Redundant OMS & IVR Systems
- Review & Revise List of Priority Restoration Accounts
- Produce & Distribute Master Contact List
- Test Communications Equipment – Radios, Satellite Phones & Internet
- Verify Emergency Arrangements With Fuel Vendors
- Secure Mechanic & Wrecker Services
- Identify & Designate Staging Areas for Additional Crews
- Prepare Info Packet for Arriving Out-of-Town Crews

Multiple Dispersed Inventory Stockpiles for Storm Events
Operations Control Center

- Established Centralized Operations & Control Center
- Renovated “Hardened Facility”
- Structure Rated to Withstand Minimum 140 mph Winds
- Impact Resistant Glass - Reinforced Roofing
- Emergency Power With Expanded Fuel Capacity
- Satellite Communications
- Bunker for Protection of Staff On Station During Storm Event
- Commercial Grade Core Appliances to Support Field Crews

Storm Hardened Control Center With Panoramic Wall Projectors
Talquin Technology Deployments

• GIS Mapping System (2008)
• Outage Management System With Prediction Technology (2009)
• 10 Campus/18 Building Cisco VOIP System (2009)
• Fixed Wireless “Smart Grid” Canopy (2010)
• Electric AMI System with Outage Reporting (In Progress)
• 200 MB Microwave Backhaul Redundant Network (In Design)
Outage Data

- Established Replicated Backup OMS Servers (2008)
- Web-Based Reporting (2009)
- Outage Status Maps (2009)
- PATLive Call Center with Partner Network (2011)
- Dual IVR System with Off-Site Replication (2011)
- Established Meter-Based Reporting to OMS (2011)
Screen Shot of Incident Entry Page From OMS Depicting Outage Notification
From Sensus Flexnet® AMI Meter
Areas of Vulnerability

• Storm Surge Damage to Underground System

• Profile of Service Area – Vast Areas of Heavy Forest

• Limitations to Trimming

Bill May
Director of Cooperative Initiatives
Talquin Electric Cooperative, Inc.
Talquin Water & Wastewater, Inc.
850-627-7651 or billm@talquinelectric.com