

Florida Public Service Commission

Critical System Readiness - 2011

Bill May, Director of Cooperative Initiatives

Talquin Electric Cooperative, Inc.

Talquin Water & Wastewater, Inc.

Tallahassee, FL

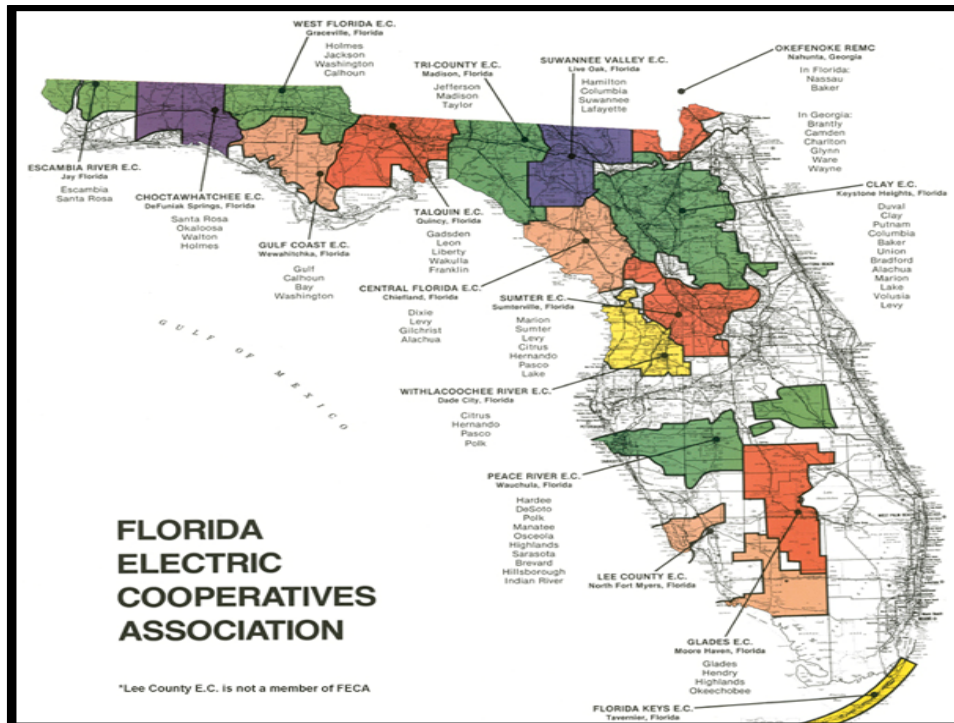
May, 2011



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 PREPAREDNESS 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

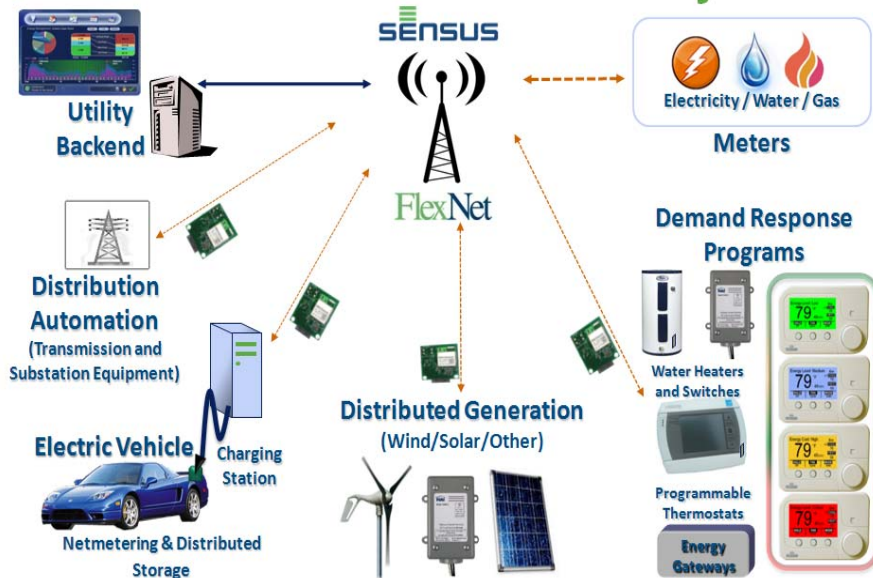


Talquin Technology Deployments

- 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)

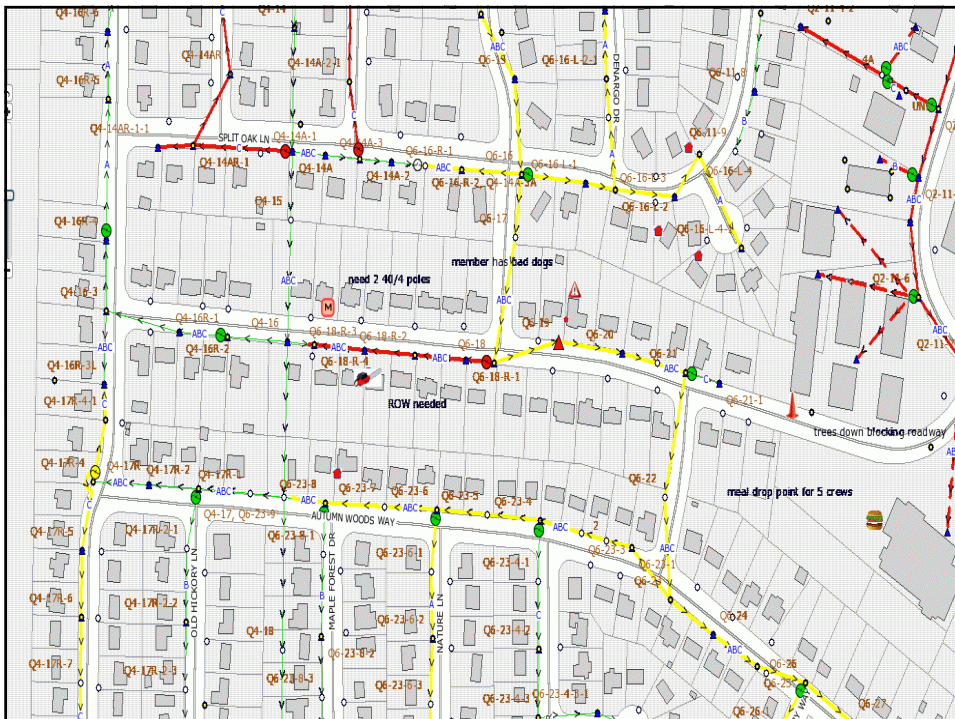


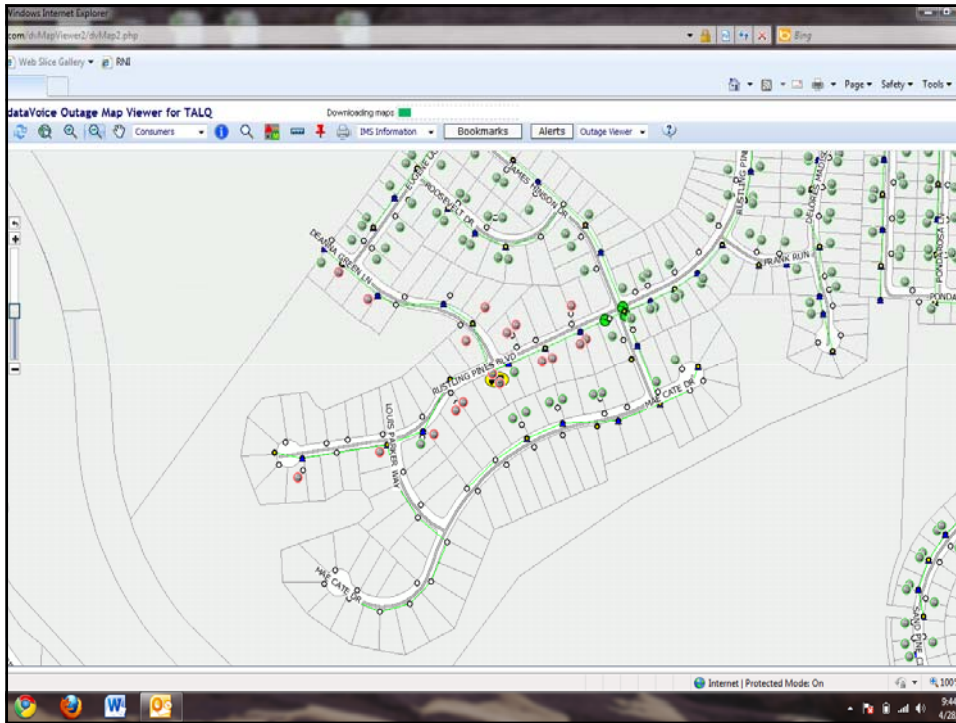
Sensus AMI and Smart Grid System



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)





dataVoice International *Customer Management: Customer Detail*

Navigation Actions Close

 **Service Type:** Electric

Phone: **Hold?** No

Account No: 06941852656 **Callback:** No

Meter: 00027676557

Map Location: 1021971854 **Callback Number:**

Name: TALQUIN ELECTRIC COOPERATIVE,

Service Location: HOUSE

LS: MTR:22893

Sub: 7 **Fdr:** 2

Phase: B **Start:** 04/27/2011 17:00

Pole: H2-174-0-12-0-01

District: 02 S. Tallahassee and Crawfordvil

Class: **Cause:**

Comments: 254 characters left

Ask the Caller...

- 1 Problem?
- 2 Constant or intermittent?
- 3 Neighbors?
- 4 Sounds?
- 5 Observations?
- 6 Check your breakers?

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



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WATER & WASTEWATER, INC.

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