State of Florida

Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: April 29, 2010

TO: Ann Cole, Commission Clerk, Office of Commission Clerk

FROM: Dan Hoppe, Director, Division of Service, Safety & Consumer Assistance

RE: Annual Storm Hardening Reports of the Municipal and Cooperative Electric Utilities Pursuant to Rule 25-6.0343, F.A.C.

Please add the following Storm Hardening Reports of the municipal and cooperative electric utilities for calendar year 2009 to Case Management, Docket Number 100000-OT. The data in these reports are comparable with those in Document Number 02660-08 in Docket Number 080000-OT, which contained the reports for 2007. If you have any questions, please let me know. Thank you.

UTILITY	DATA YEAR	YEAR FILED	DOCUMENT NUMBER
Alachua, City of	2009	2010	None
Bartow, City of	2009	2010	None
Beaches Energy Services	2009	2010	None
Blountstown, City of	2009	2010	None
Bushnell, City of	2009	2010	None
Chattahoochee, City of	2009	2010	None
Clewiston Utilities, City of	2009	2010	None
Fort Meade, City of	2009	2010	None
Fort Pierce Utilities Authority	2009	2010	None
Gainesville Regional Utilities	2009	2010	None
Green Cove Springs, City of	2009	2010	None
Havana, Town of	2009	2010	None
Homestead, City of	2009	2010	None
JEA	2009	2010	None
Keys Energy Services	2009	2010	None
Kissimmee Utility Authority	2009	2010	None
Lake Worth Utilities Department	2009	2010	None
Lakeland Electric	2009	2010	None
Leesburg, City of	2009	2010	None
Moore Haven, City of	2009	2010	None
Mount Dora, City of	2009	2010	None
New Smyrna Beach	2009	2010	None
Newberry, City of	2009	2010	None

Ocala Electric Utility	2009	2010	None
Orlando Utilities Commission & City of St. Cloud	2009	2010	None
Quincy, City of	2009	2010	None
Reedy Creek Improvement District	2009	2010	None
Starke, City of	2009	2010	None
Tallahassee, City of	2009	2010	None
Vero Beach, City of	2009	2010	None
Wauchula, City of	2009	2010	None
Williston, City of	2009	2010	None
Winter Park, City of	2009	2010	None
Central Florida Electric Cooperative, Inc.	2009	2010	None
Choctawhatchee Electric Cooperative, Inc.	2009	2010	None
Clay Electric Cooperative, Inc.	2009	2010	None
Escambia River Electric Cooperative	2009	2010	None
Florida Keys Electric Cooperative Association, Inc.	2009	2010	None
Glades Electric Cooperative, Inc.	2009	2010	None
Gulf Coast Electric Cooperative, Inc.	2009	2010	None
Lee County Electric Cooperative, Inc.	2009	2010	None
Okefenokee Rural Electric Membership Corp.	2009	2010	None
Peace River Electric Cooperative, Inc.	2009	2010	None
Seminole Electric Cooperative, Inc.	2009	2010	None
Sumter Electric Cooperative, Inc.	2009	2010	None
Suwannee Valley Electric Cooperative, Inc.	2009	2010	None
Talquin Electric Cooperative, Inc.	2009	2010	None
Tri-County Electric Cooperative, Inc.	2009	2010	None
West Florida Electric Cooperative Association, Inc.	2009	2010	None
Withlachoochee River Electric Cooperative, Inc.	2009	2010	None

City of Alachua

Traci L. Cain
Interim City Manager

Public Services

Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2009

1) Introduction

CITY OF ALACHUA
PO BOX 9
ALACHUA, FLORIDA 32616
Mr. Mike New, Director of Public Services (mnew@cityofalachua.com)
Phone: (386)-418-6140, Fax: (386)-418-6164

2) Number of customers served in calendar year 2009
4020

3) Standards of Construction

The City of Alachua has been working with FMPA's Professional Consultant to review and evaluate the City's Electrical Standards. The City's construction standards, policies, practices and procedures are designed to mitigate damages from extreme weather conditions.

a) National Electric Safety Code Compliance

Construction Standards, policies, guidelines, practices and procedures at the City of Alachua comply with the National Electric Safety Code (ANSI C-2 [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC shall apply. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

The City of Alachua follows the guidelines for extreme wind loading in accordance the NESC standards. The City of Alachua constructions standards are in compliance with 250-2(d) of the 2007edition of the NESC for new construction, including expansion, rebuild, or relocation of existing facilities.

c) **Flooding and Storm Surges**

The City of Alachua is not located in a coastal area subject to storm surges; therefore, storm surge is not an issue.

d) **Safe and Efficient Access of New and Replacement Distribution Facilities**

All existing facilities have complete access for maintenance, complete with PUE (Public Utilities Easements) to insure compliance. New developments within the corporate limit are reviewed to ensure compliance to the City of Alachua's Electrical Construction Standards, approved materials, policies, guidelines, practices, and procedures for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

e) **Attachments by Others**

The pole attachment agreement between the City of Alachua and other utilities includes language which specifies that the responsibility for poles strength evaluation and safety. The Pole Attachment Agreement includes language which specifies that the utility, not the City of Alachua, has the burden of assessing pole strength and safety before attachment to the pole. The City performs attachment audits as required to ensure conformance. .

4. **Facility Inspections**

(a) **Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.**

The City of Alachua performed inspection of the electric poles in service for FY 2009, with an annual goal of 12.5% for an 8-year inspection cycle period.

b) **Number and percentage of transmission and distribution inspections planned and completed for 2009.**

Number of Poles: 2856   Inspected: 297 poles. (11.0%)

Note: The City of Alachua has only Distribution Poles, No Transmission.

c) **Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.**

Failed: 39 poles @ 13.1 %. The City replaced poles due to the following: (22) Shell Rot, (8) Decay Top, (9) Woodpecker Holes.

d) **Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.**

The City has no Transmission Poles to maintain. The wood poles failing inspection where either 45' or 50' – Class 3; these poles were replaced. All other poles inspected were wrapped and treated.

5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The Public Utility Research Center held a vegetation management conference on January 26-27, 2009. Through FMEA, the City of Alachua has a copy of the report and will use the information to continually improve vegetation management practices.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

The City has no Transmission System to maintain.

The City of Alachua trims the overhead distribution system on a yearly cycle. The City of Alachua has 130 miles of Distribution System and trimmed approximately 3% in 2009.

6. Storm Hardening Research:

The City of Alachua is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities.
For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

Mail To: 3/1/2010 Deadline

Tim Devlin, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

City of Alachua

Traci L. Cain
Interim City Manager

Public Services

Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2009

1) **Introduction**

CITY OF ALACHUA
PO BOX 9
ALACHUA, FLORIDA 32616
Mr. Mike New, Director of Public Services (mnew@cityofalachua.com)
Phone: (386)-418-6140, Fax: (386)-418-6164

2) **Number of customers served in calendar year 2009**
4020

3) **Standards of Construction**

The City of Alachua has been working with FMPA's Professional Consultant to review and evaluate the City's Electrical Standards. The City's construction standards, policies, practices and procedures are designed to mitigate damages from extreme weather conditions.

a) **National Electric Safety Code Compliance**

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b) **Extreme Wind Loading Standards**

The City of Alachua follows the guidelines for extreme wind loading in accordance the NESC standards. The City of Alachua constructions standards are in compliance with 250-2(d) of the 2007edition of the NESC for new construction, including expansion, rebuild, or relocation of existing facilities.

c) **Flooding and Storm Surges**

The City of Alachua is not located in a coastal area subject to storm surges; therefore, storm surge is not an issue.

d) **Safe and Efficient Access of New and Replacement Distribution Facilities**

All existing facilities have complete access for maintenance, complete with PUE (Public Utilities Easements) to insure compliance. New developments within the corporate limit are reviewed to ensure compliance to the City of Alachua's Electrical Construction Standards, approved materials, policies, guidelines, practices, and procedures for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

e) **Attachments by Others**

The pole attachment agreement between the City of Alachua and other utilities includes language which specifies that the responsibility for poles strength evaluation and safety. The Pole Attachment Agreement includes language which specifies that the utility, not the City of Alachua, has the burden of assessing pole strength and safety before attachment to the pole. The City performs attachment audits as required to ensure conformance. .

4. **Facility Inspections**

(a) **Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.**

The City of Alachua performed inspection of the electric poles in service for FY 2009, with an annual goal of 12.5% for an 8-year inspection cycle period.

b) **Number and percentage of transmission and distribution inspections planned and completed for 2009.**

Number of Poles: 2856 Inspected: 297 poles. (11.0%)

Note: The City of Alachua has only Distribution Poles, No Transmission.

c) **Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.**

Failed: 39 poles @ 13.1 %. The City replaced poles due to the following: (22) Shell Rot, (8) Decay Top, (9) Woodpecker Holes.

d) **Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.**

The City has no Transmission Poles to maintain. The wood poles failing inspection where either 45' or 50' – Class 3; these poles were replaced. All other poles inspected were wrapped and treated.

5. **Vegetation Management**

a) **Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.**

The Public Utility Research Center held a vegetation management conference on January 26-27, 2009. Through FMEA, the City of Alachua has a copy of the report and will use the information to continually improve vegetation management practices.

b) **Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.**

The City has no Transmission System to maintain.

The City of Alachua trims the overhead distribution system on a yearly cycle. The City of Alachua has 130 miles of Distribution System and trimmed approximately 3% in 2009.

6. **Storm Hardening Research:**

The City of Alachua is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities.
For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

Mail To: 3/1/2010 Deadline

Tim Devlin, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

THE CITY OF OAKS AND AZALEAS

CITY OF BARTOW

February 25, 2010

Marshall Willis, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

RE: 2009 Storm Hardening Report Submittal – City of Bartow

Dear Mr. Devlin:

Attached you will find the City of Bartow's submittal for the 2009 Annual Storm Hardening Report. Please review and call me with any questions or comments at (863) 534-0142.

Sincerely,

Matt Culverhouse
Engineering Supervisor

Enc.

RECEIVED
MAR 05 2010
Florida Public Service Commission
Division of SSC

City of Bartow
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

a) Name of city/utility

City of Bartow

b) Address, street, city, zip

450 North Wilson Avenue, Bartow, FL 33830

c) Contact information: Name, title, phone, fax, email

Matt Culverhouse
Engineering Supervisor
Phone: (863) 534-0142, Fax (863) 534-7196
Email: Culverhouse.electric@cityofbartow.net

2) Number of meters served in calendar year 2009

11,208

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Bartow currently comply with the National Electric Safety Code (ANSI C-2) [NESC]. The City of Bartow's distribution standards were updated and made effective June 1, 2008. For electrical facilities constructed on or after July 1, 2008, the 2007 NESC applies. Electrical facilities constructed prior to July 1, 2008, were built to comply with prior editions of the NESC.

b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the City of Bartow are currently guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for new construction. The City of Bartow lies within the 100-110 mph region. Wind loading standards for this region were included in the City's 2008 standards update.

c) Flooding and Storm Surges

We are not located in a coastal area. Flooding and Storm surges do not apply to the City of Bartow.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Bartow provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that City of Bartow's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. We decide on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

e. Attachments by Others

Currently, we have attachment agreements with the local telephone and cable providers. These agreements require that any new attachments or changes to existing attachments will be designed and executed per the NESC code in force at the time of the attachment is made. We follow up the attachments with quarterly inspections required by the PSC and make corrections as necessary.

4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

The City of Bartow has developed a policy to inspect our facilities based on an eight year cycle. We chose to elicit the help of a contractor to perform pole inspections on a percentage of our utility system. The contractor we have chosen has many years of experience in pole inspections. Each year, said contractor will receive a grouping of facilities based on age determined via the City's facility database. All facilities initially receive a visual inspection with notes made of any problems discovered. Tests are also done to identify shell rot and insect infestation. The facilities are then excavated to a depth of 18 inches while measurements are made to determine the strength remaining. All facilities passing the visual inspection and having 40 percent or greater strength remaining are treated with a life extending process and reported so. Any facilities not meeting these criteria are noted in the report for further action.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2009.

In 2008, the City planned to inspect 1,500 facilities, approximately one eighth of our system. At year end, we had inspected 1,669 poles which places us ahead of our proposed 1,500 poles per year target.

c) **Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2009 and the reason for the failure.**

Of the 1,669 inspections completed, 358 distribution poles, or approximately 21 percent, returned below standard results for various reasons including rotten ground decay or rotten pole top decay.

d) **Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2009, including a description of the remediation taken.**

Please see the attached spreadsheet listing pole type, class, and remediation method.

5. **Vegetation Management**

a) **Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.**

We are currently on a 4 year tree trimming cycle. We try to trim out our distribution at a 6-10 foot clearance depending on the situation and type of vegetation. We have a licensed arborist on staff and currently use such practices as basal bark treatment, foliage treatment, cut-stump treatment, & herbicide application along with our regular trimming. We remove problem trees when deemed necessary by our crews or when the history of the tree reveals problems. Our reliability analysis indicates that our vegetation management practices are effective.

b) **Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2009.**

We feel that our 4 year trimming cycle and other vegetation management practices mentioned in 5a. are effective in offering great reliability to our customers for now and for years to come.

6. **Storm Hardening Research**

The City of Bartow is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

City of Bartow Pole Replacement Report

Poles Replaced as of 2-22-10

Facility ID	Pole Length/Class	Pole Type	Remediation
	Found during 2009 inspections		
6641	30/4	Southern Pine	Replaced
11718	30/4	Southern Pine	Replaced
5126	30/5	Southern Pine	Replaced
5719	30/5	Southern Pine	Replaced
5780	30/5	Southern Pine	Replaced
8059	30/5	Southern Pine	Replaced
8085	30/5	Southern Pine	Replaced
8101	30/5	Southern Pine	Replaced
8116	30/5	Southern Pine	Replaced
8599	30/5	Southern Pine	Replaced
8684	30/5	Southern Pine	Replaced
8743	30/5	Southern Pine	Replaced
8762	30/5	Southern Pine	Replaced
8772	30/5	Southern Pine	Replaced
8794	30/5	Southern Pine	Replaced
9575	30/5	Southern Pine	Replaced
10091	30/5	Southern Pine	Replaced
10101	30/5	Southern Pine	Replaced
10111	30/5	Southern Pine	Replaced
10138	30/5	Southern Pine	Replaced
10163	30/5	Southern Pine	Replaced
10560	30/5	Southern Pine	Replaced
10610	30/5	Southern Pine	Replaced
10612	30/5	Southern Pine	Replaced
11668	30/5	Southern Pine	Replaced
11671	30/5	Southern Pine	Replaced
11694	30/5	Southern Pine	Replaced
11696	30/5	Southern Pine	Replaced
11713	30/5	Southern Pine	Replaced
NN	30/5	Southern Pine	Replaced
NN	30/5	Southern Pine	Replaced
NN	30/5	Southern Pine	Replaced
NN	30/5	Southern Pine	Replaced
NN	30/5	Southern Pine	Replaced
NN	30/5	Southern Pine	Replaced
NN	30/5	Southern Pine	Replaced
10038	30/6	Southern Pine	Replaced
10561	30/6	Southern Pine	Replaced
12418	30/6	Southern Pine	Replaced
NN	30/6	Southern Pine	Replaced
11516	30/7	Southern Pine	Replaced
9249	35/4	Southern Pine	Replaced
9560	35/4	Southern Pine	Replaced
11665	35/4	Southern Pine	Replaced
486	35/5	Southern Pine	Replaced
1051	35/5	Southern Pine	Replaced

2/22/10
MJC

1415	35/5	Southern Pine	Replaced
1591	35/5	Southern Pine	Replaced
2082	35/5	Southern Pine	Replaced
2085	35/5	Southern Pine	Replaced
5212	35/5	Southern Pine	Replaced
5760	35/5	Southern Pine	Replaced
6690	35/5	Southern Pine	Replaced
8114	35/5	Southern Pine	Replaced
8145	35/5	Southern Pine	Replaced
8166	35/5	Southern Pine	Replaced
8177	35/5	Southern Pine	Replaced
8192	35/5	Southern Pine	Replaced
8251	35/5	Southern Pine	Replaced
8768	35/5	Southern Pine	Replaced
8775	35/5	Southern Pine	Replaced
9510	35/5	Southern Pine	Replaced
9539	35/5	Southern Pine	Replaced
9669	35/5	Southern Pine	Replaced
10179	35/5	Southern Pine	Replaced
10567	35/5	Southern Pine	Replaced
11500	35/5	Southern Pine	Replaced
11905	35/5	Southern Pine	Replaced
11918	35/5	Southern Pine	Replaced
11919	35/5	Southern Pine	Replaced
NN	35/5	Southern Pine	Replaced
NN	35/5	Southern Pine	Replaced
11508	40/3	Southern Pine	Replaced
986	40/4	Southern Pine	Replaced
1029	40/4	Southern Pine	Replaced
1031	40/4	Southern Pine	Replaced
9563	40/4	Southern Pine	Replaced
10198	40/4	Southern Pine	Replaced
512	40/5	Southern Pine	Replaced
898	40/5	Southern Pine	Replaced
1003	40/5	Southern Pine	Replaced
1096	40/5	Southern Pine	Replaced
1277	40/5	Southern Pine	Replaced
1937	40/5	Southern Pine	Replaced
5106	40/5	Southern Pine	Replaced
6693	40/5	Southern Pine	Replaced
8238	40/5	Southern Pine	Replaced
8256	40/5	Southern Pine	Replaced
9100	40/5	Southern Pine	Replaced
9523	40/5	Southern Pine	Replaced
10503	40/5	Southern Pine	Replaced
11693	40/5	Southern Pine	Replaced
12400	40/5	Southern Pine	Replaced
12459	40/5	Southern Pine	Replaced
1026	45/4	Southern Pine	Replaced
6649	45/4	Southern Pine	Replaced
8176	45/4	Southern Pine	Replaced
8797	45/4	Southern Pine	Replaced

11707	45/4	Southern Pine	Replaced
12416	45/4	Southern Pine	Replaced
10126	45/5	Southern Pine	Replaced
7021	50/2	Southern Pine	Replaced
7849	50/2	Southern Pine	Replaced
10538	50/3	Southern Pine	Replaced
12452	50/4	Southern Pine	Replaced
	Found during 2008 inspections		
4455	30/5	Southern Pine	Replaced
6422	30/5	Southern Pine	Replaced
6439	30/5	Southern Pine	Replaced
6494	30/5	Southern Pine	Replaced
6765	30/5	Southern Pine	Replaced
6792	30/5	Southern Pine	Replaced
7706	30/5	Southern Pine	Replaced
NN	30/5	Southern Pine	Replaced
1584	35/5	Southern Pine	Replaced
3962	35/5	Southern Pine	Replaced
6310	35/5	Southern Pine	Replaced
6714	35/5	Southern Pine	Replaced
7770	35/5	Southern Pine	Replaced
7795	35/5	Southern Pine	Replaced
7240	40/4	Southern Pine	Replaced
7854	40/4	Southern Pine	Replaced

BEACHES ENERGY
SERVICES

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FLORIDA PUBLIC SERVICE

10 MAR -3 AM 7:49

ECONOMIC REGULATION

February 23, 2010

Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Attn: Marshall Willis
Director of Economic Regulation

Re: Beaches Energy Services' Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C., for Calendar Year 2009

Dear Sir,

Enclosed with this letter is the Beaches Energy Services' (BES) Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C., for Calendar Year 2009.

If you have any additional comments or questions, contact me at your convenience at (904) 247-6281 or via e-mail at JBowerfind@beachesenergy.com

Respectfully,

John Bowerfind, PE
Electrical Engineering Supv.
Beaches Energy Services

cc: Don Ouchley; Beaches Energy Services Director
J. S. Stonecipher, PE; Electrical Engineer
Barry Moline; FMEA Executive Director

RECEIVED
MAR 04 2010
Florida Public Service Commission
Division of SSC

City of Jacksonville Beach, Florida
dba/Beaches Energy Services
Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

a) Name of city/utility:
City of Jacksonville Beach, Florida/dba Beaches Energy Services

b) Address, street, city, zip:
1460 Shetter Ave.
Jacksonville Beach, FL 32250

c) Contact information: Name, title, phone, fax, email
Contact person: Joe S. Stonecipher, PE
Title: Electrical Engineer
Phone number: (904) 247-6260
Fax number: (904) 247-6120
Email: jstonecipher@beachesenergy.com

2) Number of meters served in calendar year 2009

In December, 2009, the number of electric meters served by Beaches Energy Services was 33,989 or:

Residential Meters	28,423
Commercial Non-Demand Meters	4,198
Commercial Demand Meters	396
Inactive or "Out-of-Service" Meters*	972
	33,989

(*Note: All electric utilities have a number of inactive accounts at any given time. In addition, a number of customers own vacation homes in the Beaches Energy Services' Service Area and they have the electric service turned "on" or "off" as they come and go.)

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the Beaches Energy Services comply with the National Electrical Safety Code (ANSI C-2). For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies.

Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the Beaches Energy Services are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC for: 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares.

In order to accommodate these 120 mph wind loads, Beaches Energy Services implemented various required changes to the distribution line standards, such as: The use of stronger concrete poles, rather than wood poles for critical feeders; and, the elimination of static lines, with shorter distribution structures, as necessary to reduce moment loads on the structures.

Beaches Energy Services currently has a Capital Funding Program in place where, over the ten (10) year period between 2008 and 2017, we plan to have all wood poles on main distribution feeder circuits replaced with stronger concrete poles. (Wood poles may still be used for single phase laterals.)

- During calendar year 2008, Beaches Energy Services replaced 140 wood poles with 92 new concrete poles and 55 new wood poles. (This was in addition to 164 distribution wood pole structures that were replaced because they failed inspection.)

- During calendar year 2009, Beaches Energy Services replaced 142 wood poles with 88 new concrete poles and 23 new wood poles.

Also, Beaches Energy Services currently has a Capital Funding Program in place where, over the same ten (10) year period between 2008 and 2017, we plan to have all overhead distribution lines, within approximately three city blocks of the Atlantic Ocean, replaced with underground cables and padmounted transformers.

- During calendar year 2008, Beaches Energy Services replaced all of the remaining City of Neptune Beach overhead lines, within approximately three city blocks of the Atlantic Ocean, with underground cables and padmounted transformers.

- At this time, we now have all overhead lines, within approximately three city blocks of the Atlantic Ocean, replaced with underground cables and padmounted transformers from the North end of our Service Area, from the City of Neptune Beach, south through the City of Jacksonville Beach.

- South of the City of Jacksonville Beach, we're currently working to replace the overhead lines, within approximately three city blocks of the Atlantic Ocean, with underground cables and padmounted transformers, south through Ponte Vedra Beach and St. Johns County, to the southern end of our Service Area.

Beaches Energy Services is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at the Beaches Energy Services address the effects of flooding and storm surges on underground distribution facilities and supporting overhead facilities.

For instance, for underground distribution facilities:

1) Beaches Energy Services is eliminating "live-front" connected transformers. Almost all exposed, "live-front" connected transformers have been replaced ; and, today, the high voltage cables are connected to the transformers with sealed, "dead front" elbows instead of exposed, "live-front" terminations that could be "faulted" by flood waters;

2) Almost all exposed, "live-front" air-insulated padmounted switchgear has been replaced with sealed padmounted switchgear using SF6 gas or insulating oil as the insulation. Also, high voltage cables are connected to the switchgear with sealed, "dead front" elbows instead of exposed, "live-front" terminations that could be "faulted" by flood waters; and,

3) Beaches Energy Services has eliminated using fiberglass foundations for padmounted equipment and now only uses thick, heavy concrete foundations in order to act as a secure "anchor" to insure equipment isn't easily moved by flood waters.

Beaches Energy Services is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages. We continue to evaluate and address the effects of flooding and storm surge but we feel it is important to wait for the results of this research to justify the effort and cost of converting overhead to underground.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the Beaches Energy Services provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

Consideration is also taken when designing circuits to ensure that our line crews and vehicles will have a suitable means of approach in order to reach the facilities and equipment safely and efficiently for the purpose of operation and maintenance. Beaches Energy Services' standard construction of vertical framing at the right-of-way line reinforces this by preventing overhang into private property and allowing bucket truck access to equipment on the back of the pole due to phase separation requirements.

In addition:

1) "Back lot line" electric utility construction has been eliminated;

2) Construction standards require all electric kWh meters be located outside and near the front corner of buildings. This eliminates the tendency to have access to kWh meters blocked by fences and bad dogs;

3) All replacement or new URD underground cables are being installed in conduits rather than being direct buried. This allows easier installation; and, in the event of a cable failure, faster and easier cable replacement;

4) All replacement or new URD underground cables have a plastic, jacketed sheath over the outer concentric neutral conductors. This eliminates corrosion and deterioration of the concentric neutral conductors on our URD underground cables;

5) Construction standards require all padmounted equipment located near buildings to have minimum access clearance around the equipment; and,

6) Construction standards for Beaches Energy Services are readily available at http://www.beachesenergy.com/ (Select "Publications and Forms" then select "Procedures Manual - Beaches Energy Services.") This allows architects, engineers and construction contractors easier access to our Construction Standards and helps eliminate misunderstandings and problems during the design phase of a construction project.

e) Attachments by Others

Electrical construction standards, policies, guidelines, practices, and procedures at the Beaches Energy Services include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to electric transmission and distribution poles.

Currently, any attachers requesting new attachments to transmission and distribution poles must provide loading calculations sealed by a licensed Professional Engineer, to determine if the pole strength complies with the current edition of the NESC.

4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

Transmission - Beaches Energy Services has only 138kV transmission circuits. All of Beaches Energy Services' transmission structures are spun or cast concrete poles, except for eleven (11) monotube steel poles and two (2) H-frame steel structures. As a result, there is little structural deterioration. Beaches Energy Services line crews perform the transmission line inspections, which are performed on an annual basis. They typically inspect the transmission structure's insulators, downguys, grounding and pole integrity.

Distribution - During 2007, Beaches Energy Services contracted with Osmose Utilities Services, Inc., to perform a general pole by pole inspection (sound and bore with excavation) for all distribution wood poles using the NESC standards for decay and reject status. Osmose Utilities Services, Inc., inspected 100% of our distribution wood poles. Poles 10 years and older were also treated at ground level for rot and/or decay.

- It has been determined that this inspection process by Osmose Utilities Services, Inc., will continue to be performed on a cycle of once every eight (8) years. The next inspection will be performed in 2015.
- The inspection method is "sound and bore" method for every wood pole over 10 years old and a complete visual inspection is also performed for all poles for cracks, splitting, woodpecker holes and obvious decay.
- For every wood pole over 10 years old, the pole base is exposed (where possible) to 18 inches to inspect for indications of decay. On all wood poles where the base could be exposed, the pole was then treated with an externally applied wood preservative.
- Wood poles where the pole base could not be exposed were MITC-Fume treated. MITC-Fume is a fumigant preservative that's applied through holes bored in the pole and will migrate through the pole to prevent rot, decay and bug damage.

Poles that failed to meet requirements were replaced.

In addition to the required documentation and treatment, Osmose tagged and provided GPS coordinates for all of our wood and concrete distribution structures.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2009.

Transmission - 100% of all of our 355 transmission structure inspections were planned and completed.

Distribution - 100% of all of our 4,657 distribution wood and concrete pole inspections were planned and completed in 2007. (4,021 distribution wood pole inspections and 636 distribution concrete pole inspections.)

In 2009, 88 new concrete poles and 23 new wood poles were installed and inspected during construction.

In 2009, there were no routine distribution wood or concrete pole inspections planned, because the next inspection process will be conducted in 2015.

c) **Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2009 and the reason for the failure.**

Transmission - No transmission structures failed inspection.

Distribution - There were no inspections, so no distribution structures failed inspection.

d) **Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.**

Transmission - No transmission structures failed inspection.

Distribution - Rather than repair them, all 164 of the distribution wood pole structures that failed inspection in 2007 have been replaced. (For a copy of the distribution wood pole inspection report, see the 2007 Storm Hardening Report for the City of Jacksonville Beach submitted to the PSC in March 2008.)

5. Vegetation Management

a) **Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.**

Transmission - Beaches Energy Services maintains transmission line clearances in accordance with the NERC Reliability Standard FAC-003-1 requirements.

All transmission lines are inspected and trimmed as needed prior to the start of each hurricane season.

Transmission line Rights-of-Way are mowed and maintained on an annual basis.

We believe our vegetation management practices are sufficient because we had no vegetation related transmission line outages in 2009.

Distribution - Beaches Energy Services has tree trimming crews from the Lewis Tree Services, Inc., working year-round in our Electric Service Area. The objective is to maintain a two to three year vegetation management cycle for transmission and distribution lines.

b) **Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2009.**

Beaches Energy Services fully completed all FY2009 vegetation management activities described above. Vegetation management activities for FY2010 are on schedule.

The Public Utility Research Center (PURC) held a vegetation management conference January 26-27, 2009. Through FMEA, Beaches Energy Services has a copy of the report and will use the information to continually improve vegetation management practices.

6. Storm Hardening Research

Beaches Energy Services is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

NATURAL GAS IS JUST NATURALLY BETTER

BLOUNTSTOWN
CITY OF BLOUNTSTOWN
20591 CENTRAL AVENUE WEST
BLOUNTSTOWN, FLORIDA 32424
PHONE: (850) 674-5488
FAX: (850) 674-8289
EMAIL: cityhall@blountstown.org

KEEP PACE ELECTRICALLY

February 25, 2010

Public Service Commission
Division of Economic Regulation
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

RE: 2009 Storm Hardening Report

To Whom It May Concern:

Please find enclosed a copy of The City of Blountstown's 2009 Storm Hardening Report required by Rule 25-6.0343. If you have any questions, please contact me.

Sincerely,

Traci S. Hall

Traci S. Hall
Finance Director

City of Blountstown
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1. Introduction

a) City of Blountstown

b) 20591 Central Avenue W.
Blountstown, FL 32424

c) Contact Information:

Traci S. Hall, Finance Director
Phone 850-674-5488; Fax 850-674-8289
Email: thall@blountstown.org

2. Number of customers served in calendar year 2009

The City of Blountstown had a total number of 1362 customers for year 2009.

3. Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices and procedures at the City of Blountstown comply with the National Electric Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices and procedures at the City of Blountstown are currently not guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild or relocation of existing facilities and major thoroughfares. The City of Blountstown has adopted a larger minimum pole standard of a class 3 pole, effective November 2007, in an effort to harden our system. After each event, The City of Blountstown is reviewing our system to determine if there is a systemic problem that needs to be addressed through changes in system standards. The City of Blountstown is continuing to examine this issue further in 2010.

The City of Blountstown is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

c) Flooding and Storm Surges

The City of Blountstown has no underground facilities. As a part of the process of evaluating the City's Current electrical system, the City of Blountstown is looking at measures to flood proof our substation. We have begun talks with our power supplier to have them take action to assure the power substation is flood proofed as well.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices and procedures at the City of Blountstown provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

e) Attachments by Others

Electrical construction standards, policies, guidelines, practices and procedures at the City of Blountstown do not include written safety, pole reliability, pole loading, capacity and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. The City of Blountstown is reviewing Pole Attachment Agreements to require others to conform to the 2007 Standards as we make replacements and also to require compliance when safety issues are identified and further examination of this issue will be on going in 2010.

4. Facility Inspection

a) Policies, guidelines, practices and procedures for inspecting transmission and distribution lines, poles and structures.

The City of Blountstown has a total of 1,704 utility poles and does visual inspections of all poles once a year. The City of Blountstown is currently finalizing a practical inspection system in 2010.

b) Number and percentage of transmission and distribution inspections planned and completed for 2009.

The City of Blountstown visually inspects 100% of our poles every year.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for failure.

As a result in our visual inspection, we found 17 poles that required replacement. Reason for the failure was ground rot and clearance issues.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

The 11 poles that were damaged were class 5 poles and were all replaced with stronger class 3 poles.

5. Vegetation Management

a) Utility's policies, guidelines, practices and procedures for vegetation management, including programs addressing appropriate planting, landscaping and problem tree removal practices for vegetation management outside of road right-of-ways or easements and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Blountstown has a four year cycle for tree trimming with a ten (10) ft clearance of our lines and facilities.

b) Quantity, level and scope of vegetation management planned and completed for transmission and distribution facilities.

The City of Blountstown will trim twenty-five (25) percent of our system with a ten (10) ft. clearance in 2010.

6. Storm Hardening Research

The City of Blountstown is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1 or bmoline@publicpower.com.

CITY OF BUSHNELL

219 N. Market Street
P.O. Box 115

Bushnell, Florida 33513
(352) 793-2591
Fax (352) 793-2711

10 FEB 25 AM 10:02
ECONOMIC REGULATION

February 22, 2010

Mr. Tim Devlin, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Subject: City of Bushnell Storm Hardening Report, Calendar Year 2009

Dear Mr. Devlin,

Please find enclosed, a copy of the subject report and supporting data on CD. Please contact me, should you require additional information.

Sincerely,

Bruce J Hickle

Bruce J. Hickle
Director of Utilities

cc: Vince Ruano, City Manager

City of Bushnell
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) **Introduction**

   a) Name of city/utility: City of Bushnell

   b) Address, street, city, zip: P.O. Box 115, Bushnell FL. 33513

   c) Contact information: Name, title, phone, fax, email : Bruce J. Hickle , Director of Utilities, 352-793-8012, 352-793-8036, bruhickle@yahoo.com

2) **Number of customers served in calendar year 2008**

   1,163

3) **Standards of Construction**

   a) National Electric Safety Code Compliance

   Response: Construction standards, policies, guidelines, practices, and procedures at the City of Bushnell comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

   b) Extreme Wind Loading Standards

   Response: Construction standards, policies, guidelines, practices, and procedures at the City of Bushnell are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after October 1, 2007.

   c) Flooding and Storm Surges

   Response: Electrical construction standards, policies, guidelines, practices, and procedures at the City of Bushnell do not address the effects of flooding and storm surges on underground distribution facilities and supporting overhead facilities because the Utility has no infrastructure in coastal communities and is not subject to major flooding/storm surge events.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Response: Electrical construction practices at the City of Bushnell provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. For example, these distribution feeders are not permitted to be placed on back lot lines or other areas having no service vehicle access.

e) Attachments by Others

Response: Electrical construction standards, policies, guidelines, practices, and procedures at the City of Bushnell do not include "written" safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric distribution poles. New attachments are approved by knowledgeable City personnel based upon visual inspection. <u>All</u> existing attachments are inspected as part of the City's pole inspection program initiated in 2007, to ensure that pole loading is acceptable. An attachment audit was completed in 2009 to verify the current number and location of existing attachments on the entire distribution system.

4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

Response: All poles in the utility distribution system were visually inspected and graded by condition in 2004 as part of a project that created a GIS map and data base of the distribution system. A comprehensive periodic inspection program covering all distribution system wood poles was initiated in 2007. The program includes visual, sound and bore inspections, pole condition rating, wind loading assessment, as well as development and maintenance of an inspection data base. The program ensures that all wood poles in the distribution system will initially be inspected at least once over a three year cycle and thereafter on a seven year cycle. All rejected poles are usually replaced within 12 months following completion of inspection.

The City of Bushnell has no transmission facilities.

b) Describe the number and percentage of transmission and distribution inspections planned and completed.

Response: 305 wood distribution poles were inspected in 2007; 319 wood distribution poles were inspected in February, 2009; and 311 poles were inspected in January, 2010. Approximately 97% of the system total has been inspected since 2007.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

Response: Eleven distribution poles, representing 3.5% of those inspected, failed (rejected) during the last inspection period. A pole inspection detail report is enclosed on CD that states the reasons for rejection in the "remarks and notes" column.

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

Response: All poles except for 1 that were rejected during the 2008 inspection have been removed or replaced. The last remaining pole is scheduled for replacement by April, 2010. All poles rejected during the 2010 inspection will be replaced within 18 months from the date of the inspection. See enclosed data for additional detail.

5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

Response: The City of Bushnell maintains a tree trimming contract covering tree removal, power line trimming, and right-of-way clearing. Tree trimming is performed by the contractor annually in the spring of the year preceding the Hurricane season. All right-of-ways are trimmed every year with a goal of maintaining foliage cut back to a three year level. Distribution lines not located on right-of-ways are trimmed by City personnel on an "as needed" basis. "Problem trees" that threaten primary distribution lines, not located within right-of-ways or easements, are also removed by the City on an as needed basis.

The City's land development regulations specify the species of trees that may be planted under or within specified distances of any overhead utility wire or underground utilities. Also specified are distances that trees may be planted from curbs and sidewalks.

The City's vegetation management practices are believed to be effective based upon outage history dating back to the 2004 hurricane season. During calendar years 2004, 2005, and 2006 combined, the City's distribution system experienced 118 outages, 11 of which were identified as due to vegetation management issues. The longest single outage was 1 hour and 15 minutes due to a vegetation management issue. Recent outage history also validates the effectiveness of the program.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2009.

Response: See above response.

The Public Utility Research Center held a vegetation management conference March 5-6, 2007. Through FMEA, the City of Bushnell has a copy of the report and will use the information to continually improve vegetation management practices.

6. Storm Hardening Research

Response: The City of Bushnell is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA has provided the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

City of Chattahoochee
Report to the Florida Public Service Commission Pursuant to
Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

a) Name of city/utility

City of Chattahoochee

b) Address, street, city, zip

P.O. Box 188
115 Lincoln Drive
Chattahoochee, Florida 32324

c) Contact information: Name, title, phone, fax, email

Jimmy Cain
Electric Distribution Forman
Office: 850-663- 4475
Cell: 850-567- 5167
Fax: 850- 663- 4233
E-mail: jimmycain@fairpoint.net

2) Number of meters served in calendar year 2009

1,239

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Chattahoochee comply with the National Electrical Safety Code (ANSI C-2)

b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the City of Chattahoochee are guided by the extreme wind loading standards specified by figure 250-2 (d) of the 2002 edition of the N.E.S.C for new construction, rebuilding, or relocation of existing facilities.

c) Flooding and Storm Surges

The City of Chattahoochee is a non-coastal utility, therefore, storm surge / flooding is not an issue.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Chattahoochee provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

e) Attachments by Others

The pole attachment agreement between the City of Chattahoochee and third party affiliates include language, which specifies that the affiliate not the City of Chattahoochee, has the burden of assessing pole strength and safety before they attach to the pole. The City or its designee shall have the right to inspect at any time all construction or installation work performed.

4. Facility Inspection

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

A complete inspection is performed on the City of Chattahoochee's distribution system every three years. The inspection involves excavation around the base, sounding, and probing with a steel rod. A visual examination of the pole hardware, insulators, guys, and anchorage points are also made during this time.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2009.

All 1,957 distribution poles were inspected in January of 2009.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2009 and the reason for the failure.

In the 2009 inspection 58 distribution poles or 3% inspected were found to be defective. Ground line and pole top decay were the major causes.

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2009, including a description of the remediation taken.

16 - (28% of poles failing inspection) class 6 – 30'
13 - (22% of poles failing inspection) class 6 – 35'
26 - (45% of poles failing inspection) class 4 - 40'
3 - (5% of poles failing inspection) class 4 - 45'

Change out of failed poles began in February of 2009 and will continue on through 2010.

5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Chattahoochee trims the distribution system on an annual basis. Any trees that are suspected of damaging the system i.e.(leaning, dead, or diseased) are removed

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2009.

The Public Utility Research Center held a vegetation management conference January 26-27, 2009. Through FMEA , the City of Chattahoochee has a copy of the report and will use the information to continually improve vegetation management practices.

6. Storm Hardening Research

The City of Chattahoochee is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext.1, or bmoline@publicpower.com.

City of Clewiston
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) **Introduction**

   a) City of Clewiston

   b) 141 Central Av, Clewiston, Fl 33440

   c) Kevin McCarthy, Utilities Director
   Phone 863-983-1454
   Fax 863-983-3406
   Email: kevin.mccarthy@clewiston-fl.gov

2) **Number of customers served in calendar year 2009**

   4,147

3) **Standards of Construction**

   a) National Electric Safety Code Compliance

   The City of Clewiston uses the current National Electric Safety Code as its construction standard.

   b) Extreme Wind Loading Standards

   All new construction and rebuilds of existing facilities will comply with the NESC extreme wind loading standard in effect at the time of design.

   c) Flooding and Storm Surges

   The City of Clewiston is an inland community sixty miles from either coast and is not subject to storm surge or it's associated flooding. In addition only a small portion of our system is in a flood zone and pad mounted transformers are elevated above the required elevation.

   d) Safe and Efficient Access of New and Replacement Distribution Facilities

   The City of Clewiston Utilities requires all new residential development to have front yard easements and road access. We also have an ordinance in place protecting our rear utility easements from fences, hedges, sheds and trees. Where practical rebuilds will relocate rear services to the front and underground the service. Commercial applications require truck access to the facility.

e) Attachments by Others

We do not have a standard guideline for pole attachments at the City of Clewiston, however all attachments are reviewed by our Engineer and since all new construction is required to be underground we have had no new pole attachments in over eight years. The only two entities that attach to our poles, Century Link and Comcast, have been reducing the number of pole attachments and moving to underground installations for the last several years, we expect this trend to continue.

4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

We have contracted with Osmose to perform our pole inspections, which are sound and bore with strength calculations and due to our small size we will complete our system in four years but operate on an eight year cycle. We conduct infrared inspections of our entire distribution system on a three to four year cycle and perform spot checks for problem areas with our in house Level II certified inspector.

b) Number and percentage of transmission and distribution inspections planned and completed for 2009

363 or approximately 25% of our poles were inspected in 2009 and we will inspect the final 25% of our poles in 2010 which will have completed our entire system inspection in four years we will begin our inspections again in 2014 to maintain an eight year pole cycle.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

Forty Two poles were rejected, or 11.5%, of the inspected poles, the load calculation was to bring the poles to extreme wind design. The poles were rejected due to rot and decay.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

The pole inspection was completed in the fourth quarter of 2009. We continue to replace rejected poles and correct maintenance items on the poles. 59 poles were replaced in 2009; these are Class 3 and 4 wood distribution poles. All of our transmission poles are concrete.

5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

We have a City ordinance that prevents any hedges or trees from being planted in the easements, any tree that is in the easement that has grown to reach the power lines is completely removed. Our feeders are trimmed annually and our laterals are trimmed as needed or as requested by our customers. All customer generated trimming requests are tracked via work orders. We have no management plan outside of road right of ways or easements, this is a private property issue, however we work with willing homeowners to remove problem trees on private property.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

All transmission and feeder distribution facilities were checked and trimmed in 2009 as they are every year. We also completed 39 customer requests for tree trimming.

The Public Utility Research Center held a vegetation management conference January 26-27, 2009. Through FMEA, Clewiston has a copy of the report and will use the information to continually improve vegetation management practices.

6. Storm Hardening Research

The City of Clewiston is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

City of Fort Meade
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

RECEIVED
MAR 03 2010
Florida Public Service Commission
Division of SSC

1) Introduction

a) City of Fort Meade

b) 8 West Broadway Avenue
Fort Meade, Fl 33841

c) Frankie Curlee, Utility Director
(863) 285-1119 ext. 2
fcurlee@cityoffortmeade.com

1) Number of customers served in calendar year 2009
2,769

2) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Fort Meade comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the City of Fort Meade are guided by the extreme wind loading standards specified by figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after

December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares.

The City of Fort Meade is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electrical Association.

c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Fort Meade address the effects of flooding and the storm surges on underground distribution facilities and supporting overhead facilities.

City of Fort Meade is also participating in the Public Utility Research Center's (PURC) study on the conversation of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Fort Meade provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Whenever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that the City of Fort Meade's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. The City of Fort Meade decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

e) Attachment by Others

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Fort Meade include written safety , pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. We inspect these attachments on a eight year cycle.

4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distributions lines, poles, and structures.

The City of Fort Meade has developed and implemented an eight year inspection program for our electrical system. The visual and the sound and probe technique are used in the inspections

b) Number and percentages of transmission and distribution lines, poles, and structure.

The City of Fort Meade has distribution lines only. The City of Fort Meade replaced 7 poles for the calendar year 2009.

c) Number and the percentage of transmission poles and structures and distribution poles, failing inspection and the reason for the failure.

The City of Fort Meade has distribution poles only. The city had (7) seven poles or approximately .3 % of the total number of poles of 2,725 poles that were replaced due to inspections. The city inspected 461 poles for the calendar year 2009
The poles failed inspection for the following reasons:
1) Age deterioration.
2) Animal infestation. (wood boring birds)

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

The city replaced (7) poles or approximately .3% of the total number of poles in the system.
The poles were replaced with 2 (40) forty foot, class (4) poles. 3 (30) thirty foot, class (5) poles 1(45) forty five foot, class (3) 1(55) fifty five foot, class (3)

5. Vegetation Management

a) Utilities policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-a-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Fort Meade has developed and implemented a three year inspection program for our electrical system. The City has a low outage rate due to problem trees.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

The City of Fort Meade has completed approximately 99% of trimming in our system.
The City of Fort Meade had 143 reported outages in the calendar year 2009. The percentages for outages due to tree limbs were 28% or 41 outages.

6) Storm Hardening Research

The City of Fort Meade is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida.

Fort Pierce Utilities Authority

"Committed to Quality"

10 FEB 25 AM 10:21

1701 South 37th Street (34947)
P. O. Box 3191
Fort Pierce, Fl 34948-3191

Phone: (772) 466-1600
Fax: (772) 461-1938
cbrewer@fpua.com

Marshall Willis, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Dear Mr. Willis,

Please find included in this package the Fort Pierce Utilities Authority's storm hardening report for Rule 25-6.0343, F.A.C..

We are pleased to report that we are committed to improving our system and are glad to share what we are doing.

Sincerely,

Craig Brewer, Superintendent of Electric T&D

10 FEB 26 PM 1:01

Fort Pierce Utilities Authority
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

a) Fort Pierce Utilities Authority

b) P.O. Box 3191, Fort Pierce, 34948-3191

c) Thomas W. Richards, PE
Director of Electric & Gas Systems
772 466-1600
772 595-9841 (fax)
tom@fpua.com

2) Number of customers served in calendar year 2009

27,956 at the end of calendar year 2009

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the Fort Pierce Utilities Authority comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

At this time, Fort Pierce Utilities Authority facilities are not designed to be guided by the extreme loading standards on a system-wide basis. However, Fort Pierce Utilities Authority is guided by the extreme wind loading standard NESC 2007 of 150mph for:

a) New construction.
b) Major planned work, including expansion, rebuilds, or relocation of existing facilities assigned on or after February 1, 2007
c) Targeted critical infrastructure.

FPUA is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

We continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in specific areas. We will monitor the results of this research to determine the most appropriate response for system upgrades and hardening.

c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at the Fort Pierce Utilities Authority address the effects of flooding and storm surges on underground distribution facilities and supporting overhead facilities. Fort Pierce Utilities Authority is abiding by the FEMA 100 Year Flood zone for new construction of underground facilities. As an example, Fort Pierce Utilities Authority has installed submersible vacuum switch gear, to minimize the effects of flooding and storm surges in areas susceptible to these events

FPUA is participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research to justify the effort and cost of converting overhead to underground.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the Fort Pierce Utilities Authority provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that Fort Pierce Utilities Authority's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. Fort Pierce Utilities Authority decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

e) Attachments by Others

Electrical construction standards, policies, guidelines, practices, and procedures at the Fort Pierce Utilities Authority include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. We inspect these attachments on an 8 year cycle.

4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

Transmission: A new transmission pole inspection program was instituted at the beginning of fiscal year 2007. Fort Pierce Utilities Authority has 446 transmission poles. All 250 wood poles are inspected annually. Concrete (106) and steel (90) poles are included in the inspection every third year to inspect the hardware, bolts and bonding on these poles and the wood poles. Wood poles are tested using the sound and bore method. All 446 transmission poles (wood, concrete and steel) were inspected in 2007. Hardware, bolt and bonding inspection was performed on all poles, as well as excavation, sound and bore test on wood poles during this inspection.

All wood transmission poles were tested during fiscal year 2009 using visual and the excavation, sound and bore method.

Distribution: Fort Pierce Utilities Authority hired OSMOSE Utility Services to perform a system wide inspection of all distribution lines, poles, and structures. Staff believes, because of the utilities size, it is more efficient to inspect the entire distribution system every 8 years. Staff will, however, continue to monitor the process to ensure this is a valid assumption.

b) Number and percentage of transmission and distribution inspections planned and completed for 2009.

Transmission: 100% of the transmission wood pole inspection was completed. This included all 250 wood transmission poles.

Distribution: Fort Pierce Utilities Authority hired OSMOSE to perform a 100% system wide inspection of all distribution lines, poles, and structures. Inspection of 12,128 wood distribution poles was completed in December 2008. Since 100% of the distribution system was inspected in 2008, no inspections were done in 2009. See explanation in 4a above.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection in 2009 and the reason for the failure.

Transmission: Three (3) transmission poles or 1.2% failed inspection in 2009. Three failed from wood deterioration and one of the three also failed from woodpecker damage.

Distribution: There were no distribution inspections in 2009. See explanation in 4a above.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2009 including a description of the remediation taken.

Transmission: Three (3) class one (1) transmission poles or 1.2% failed inspection in 2009. All three poles have been replaced.

Distribution: There were no distribution inspections in 2009. See explanation in 4a above.

5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The Fort Pierce Utilities Authority maintains a tree trimming contract covering tree removal, power line trimming, and right-of-way clearing. The contractor performs tree trimming year round with particular attention paid to critical infrastructure in the spring preceding Hurricane season. All transmission distribution lines are trimmed on a 3-year cycle with a goal of maintaining foliage cut back to a three-year level. "Problem trees" that threaten primary distribution lines, not located within right-of-ways or easements, are also removed by the Utility on an as needed basis.

The transmission lines are patrolled annually for vegetation management. Twelve trees are identified as trees that need to be monitored. These trees are visited quarterly to ensure there is no trimming needed.

The Fort Pierce Utilities Authority works with developers and suggests which species of trees may be planted under or within specified distances of any overhead utility wire or underground utilities.

The vegetation management practices are believed to be effective based upon outage history dating back to the 2004 hurricane season. During calendar years 2005 through 2009 the Utility's distribution system averaged 702 outages. There was an average of 37 outages identified as due to vegetation management issues. This represents 5.3% of outages are vegetation management related. The Fort Pierce Utilities Authority staff believes this is an indication that our vegetation management practices are sound.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

Fort Pierce Utilities Authority plans to continue to provide resources for the same quantity, level and scope of vegetation management as in the past.

The Public Utility Research Center held a vegetation management conference January 26-27, 2009. Through FMEA, Fort Pierce Utilities Authority has a copy of the report and will use the information to continually improve vegetation management practices.

6. Storm Hardening Research

Fort Pierce Utilities Authority is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

GRU

GAINESVILLE REGIONAL UTILITIES

Energy Delivery Administration

February 25, 2010

Mr. Marshall Willis, Acting Director
Division of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Dear Mr. Willis:

Attached is the Gainesville Regional Utilities (GRU) 2009 Storm Hardening Report. We believe all reporting requirements of Rule 25-6.0343 have been addressed and satisfied. However, should there be any unanswered questions or need for further expansion or clarification, we will address such needs in a timely manner upon notice. GRU has been proactive historically in nearly all facets of the Storm Hardening initiative, and we are pleased to report our programs and successes to the Commission.

Sincerely,

David E. Beaulieu

David E. Beaulieu, P.E.
Assistant General Manager

DEB:pl

Enclosure

W:\U0500a\PSC\2009 Storm Hardening Report-Cover Letter.doc

GRU
Storm Hardening Report
to the Florida Public Service Commission
Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

a) Gainesville Regional Utilities (GRU)

b) 301 SE 4th Avenue
Gainesville, Florida 32601

c) David E. Beaulieu, PE
Assistant General Manager, Energy Delivery
Office: (352) 393-1513
Fax: (352) 334-2784
beaulieude@gru.com

2) Number of customers served in calendar year 2009

GRU serves Gainesville proper as well as Gainesville's urban fringe but does not serve the University of Florida campus. The number of electric customers served in 2009 averaged 92,785 which can be broken down by class as follows:

Residential Customers:	82,605
Non-Residential Customers:	10,440
Total:	93,045

3) Standards of Construction

(a) National Electrical Safety Code Compliance

GRU's Material and Construction Standards are continuously maintained and updated to ensure compliance with the applicable version of the National Electric Safety Code (NESC). Construction standards, policies, guidelines, practices and procedures for electric distribution facilities installed prior to February 1, 2007 adhered to the requirements of the version of the NESC in effect at the time of installation. Electric distribution facilities installed subsequent to February 1, 2007 complied with the 2007 version of the NESC.

(b) Extreme Wind Load Standards

GRU's Material and Construction Standards are guided by the extreme wind loading requirements specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction, 2) major planned work, including expansion rebuild or relocation assigned on or after December 10, 2006, and 3) targeted critical infrastructure facilities and major thoroughfares taking into account political and geographical boundaries and other applicable operational considerations. Electric distribution facilities installed subsequent to February 1, 2007 comply with the extreme wind loading standards of the 2007 version of the NESC.

(c) Flooding and Storm Surges

GRU is located in north central Florida, roughly equidistant to both coasts. GRU's electric distribution facilities are not subject to storm surges and have limited exposure to flooding. Where there has been significant flooding GRU evaluates the opportunity to relocate facilities, underground and overhead, to more secure locations.

(d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at GRU provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

GRU has prioritized the replacement of electric distribution facilities by age and reliability. Wherever possible, difficult-to-access facilities are reviewed to determine if they can be relocated. Typically relocating existing back lot electric facilities to the front or roadway is problematic due to the existing tree canopy. GRU utilizes new poles and insulated aerial cable when rebuilding the existing electric infrastructure to harden and improve the reliability of that system. Also, GRU owns motorized and non-motorized back lot equipment that facilitates access to, and the repair of, limited access facilities. Long distribution system laterals have been reconfigured and at times shortened to improve system reliability.

(e) Attachment by Others

Electrical construction standards, policies, guidelines, practices, and procedures at GRU include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles.

GRU requires pole attachment agreements for entities that desire to attach to its structures. The agreements stipulate that such entities must submit a permit request to GRU prior to making any attachments, with the exception of attaching a service drop cable. Whenever a pole proposed for joint use is of insufficient height or strength for the existing or proposed attachments the pole is replaced. There is an additional requirement imposed on such entities to install whatever guy and anchor system necessary to sustain any unbalanced load their attachment places on the structure. Dependant upon the nature and age of GRU's pole attachment agreements, some agreements require that the permit request include an engineer's determination that the impact of the proposed attachment will satisfy the applicable NESC requirements.

4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

GRU has had a comprehensive and periodic pole inspection/treatment program since 1992.

Overview

- The inspection cycle has been established at eight (8) years.
- The inspection method is 'sound and bore method' for every pole and a complete visual inspection is also performed as well for cracks, splitting and obvious decay.
- The pole base is exposed (where possible) to 18 inches to inspect for indications of decay. Where such exposure is not possible, the pole is treated with MITC-fume, a pesticide that will migrate throughout the pole to prevent rot, decay and insect damage.
- Poles less than ten (10) years old are not inspected.
- Pole treatment is documented by Pole Inspection Program Maps and in electronic data files.

Transmission

GRU visually inspects all transmission line for vegetation danger trees twice each year and following major storm events. GRU has detailed inspection and ground line treatment performed on all wood transmission poles following an 8-year cycle. The inspection and treatment of these poles consists of a full visual inspection, and sound and boring to locate unseen decay pockets. Visual inspection includes below ground line inspection to a depth of 18" around the base of each pole. After inspection any decay is removed and a preservative paste is applied to prevent future decay. Transmission lines are also treated with MITC-fume to prevent internal decay as well. MITC-fume is a pesticide that migrates throughout a pole to prevent rot, decay and insect damage. Visual inspections also provide information about other items such as damaged hardware, woodpecker holes, cracks, splits and decayed pole tops. GRU replaces all rejected poles within one year of the inspection date. Rejected poles determined to be a "priority" are replaced immediately.

Distribution

GRU performs a detailed inspection and ground line treatment on wooden distribution poles over an 8-year cycle. All wood poles 10 years of age and older are inspected and treated over the cycle. The inspection and treatment of these poles consists of a full visual inspection and sounding and boring to locate unseen decay pockets. Visual inspection includes below ground line inspection to a depth of 18" around the base of each pole. After inspection any decay is removed and a preservative paste is applied to prevent future decay. Distribution poles that cannot be fully ground line inspected are treated with MITC-fume to prevent internal decay. Visual inspections also provide information on other problems such as damaged hardware, woodpecker holes, cracks, splits and decayed pole tops. GRU replaces all rejected poles within one year of the inspection date. Rejected poles determined to be a "priority" are replaced immediately.

b) Number and percentage of transmission and distribution inspections planned and completed for 2009.

GRU planned to inspect and treat 164 transmission poles and completed all 164 inspections (100% of planned work). GRU planned to inspect 3,561 distribution poles that met the annual inspection criteria (10 years of age or older) and completed a total of 3,542 inspections (99.5% of planned work).

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

No transmission poles were identified for replacement based upon the 2009 inspection. Of the 3,542 distribution poles inspected in 2009, 32 poles were replaced (failure percentage 0.9%). The failures were caused by shell rot, heart rot, decay, split pole top, termites and carpenter ants.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

<u>Transmission Poles</u>
None found

<u>Distribution Poles</u>

Height/Class	# in Class	% of Total	Remediation
30/6	3	9%	Replaced
35/4	2	6%	Replaced
35/5	4	13%	Replaced
35/6	1	3%	Replaced
40/3	1	3%	Replaced
40/4	6	19%	Replaced
40/5	2	6%	Replaced
45/3	2	6%	Replaced
45/4	3	9%	Replaced
50/3	5	16%	Replaced
55/3	2	6%	Replaced
60/1	1	3%	Replaced

5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

GRU's Vegetation Management work group establishes and maintains the clearances required to reliably operate approximately 560 miles of overhead distribution lines on a three year rotating cycle. The work plan each year is defined, scheduled and executed by specific distribution circuits which range in size from approximately two to twenty five miles in length. Prioritizing of these circuits is based upon reliability, visual inspection and customer requests. GRU is midway through its 6th maintenance cycle. The vegetation management program includes maintenance of primary, secondary and service drops. We also have an aggressive herbicide program to reduce the density of undesirable vegetation as well as a tree growth regulator program to address specific problems. As much as it is possible to identify potentially hazardous trees from beyond the limits of the right-of-way/easement, we have had a program to negotiate with the property owner to remove these trees and provide the owner with a voucher redeemable for low growing species if need be.

The distribution vegetation maintenance program is based upon nationally recognized standards of tree care and vegetation management practices and adapted to Gainesville's environment and specific operating concerns.

These standards and practices include, but are not limited to the following:

- National Electric Safety Code
- ANSI A300 (Tree care - standard practices)
- ANSI Z133.1 (Tree care - safety practices)
- Shigo - Pruning trees near electrical utility lines
- Shigo - Tree Pruning
- Matheny and Clark - Evaluation of hazardous trees in urban areas

Components of the distribution maintenance program are:

- Routine utility tree pruning
- Selective tree removals based upon hazardous conditions
- Selective use of herbicides
- Selective use of tree growth regulators
- Wood chip recycling

Appropriate Planting

GRU has produced a "Plant the Right Tree in the Right Place" brochure with a list of compatible tree species. By compatible we mean that these species may be planted within ten feet of an overhead power line. The mature height of these species is such that they should never reach GRU facilities.

GRU maintains a number of different types of ground level electric facilities. The two that we are concerned with are switchgear and pad-mount transformers. It is imperative that customers do not plant shrubs and small trees directly in front of these facilities. Each structure has a decal that reflects the above recommendations.

We have also developed a set of tree planting guidelines for use by developers and engineers as to appropriate species to be planted within prescribed distances from our facilities.

The City of Gainesville enjoys an especially dense tree canopy, one that is clearly favored by our community and its citizens. As a neighbor and responsive municipal electric utility, GRU has long acknowledged our obligation to serve our customers in this environment in the most effective yet least intrusive manner. Consequently, our ratio of underground to overhead electric distribution facilities is among the highest in the State.

GRU's Vegetation Management program was developed over time with a care and control agenda that has been recognized as a model program for electric utilities. GRU records and continually monitors vegetation related service interruptions. GRU records tree related outages in one of three categories: **Tree Preventable** – vegetation to be maintained within our easements; **Tree Non-Preventable** – vegetation from outside of our easements; and **Vines**. Tree preventable service interruptions accounted for only 1.2 % of all service interruptions in 2009.

Transmission Program

GRU was the subject of a North American Electric Reliability Council (NERC) performance and readiness audit in April 2006 where GRU's Vegetation Management Program received a Potential Example of Excellence (PEOE).

Their report stated ***"GRU has a well documented and comprehensive vegetation management policy, program and knowledgeable staff. The GRU vegetation-management program and staff oversight is identified as a potential example of excellence for its comprehensive, detailed procedures and performance of the program itself."***

An FRCC Spot Audit was conducted in the later half of 2009. The results found the vegetation management program was in compliance with all requisite requirements.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

GRU's Transmission and distribution right-of way maintenance of vegetation is a routine and on-going, year round program accomplished through a utility approved contractor directed and inspected by GRU Forestry professionals and Utility management staff.

Transmission System Information
76.2 corridor miles @138 kV
2.5 corridor miles @ 230kV (falls into NERC Standard FAC-003-1)
GRU applies NERC Guideline FAC-003-1 over our entire transmission system.

Transmission Inspections
The program calls for semi-annual inspections (spring and fall) to identify conditions which would pose a near-term threat to the operation of the system such as insect infestations or any other factor that would impact tree mortality or structural integrity. The program also calls for a complete inspection immediately following any significant events such as hurricanes, tornadoes or fires.

Inspections cover 100% of the transmission system and are conducted by GRU Vegetation Management personnel.

Inspection Summary Spring 2009 – April, 2009
Inspected 100% of Transmission system.
Results: Nine work sites requiring off right-of-way tree removals were identified.
Follow-up activities: Work completed by June 2009

Inspection Summary Fall 2009 – October, 2009
Inspected 100% of Transmission system.
Results: Four work sites requiring tree removal.
Follow-up activities: Work completed by October, 2009.

Transmission Maintenance
In 2009 GRU performed limited access road maintenance activities on its transmission system.

The entire floor of the transmission system was maintained by scheduled herbicide application (six-year cycle) in 2006. GRU's herbicide application program is selective and targeted only those species which were capable of growing to a mature height that would interfere with the conductors. Low growing species, except for the access areas, were not discouraged from growing. The program was designed to incorporate the research from Bramble and Burn's Gamelands 33 project which was a long-term study on rights-of-way treatments; Project Habitat principles and ANSI A300 Part 7 Integrated Vegetation Management for Electric utilities Rights-of-way.

Vegetation Management focused on the removal of potentially hazardous trees outside of our rights-of-way and easements in 2009. Additional easements were obtained on a specific portion of one transmission line to increase clearance. 100% of the system was inspected.

Distribution Maintenance
In 2009 GRU adhered to its three-year maintenance cycle and trimmed approximately 165 circuit miles that included 22 distribution circuits.

Summary
GRU's cycle-based line clearance practices embrace the philosophy of storm hardening on critical feeders, double circuits and three-phase backbone circuits. Our trimming best practices include targeting dead, diseased or damaged trees, the removal of overhanging branches and increased tree clearance. Out-of-cycle activities include frequent patrols/year round monitoring targeting danger trees.

GRU continuously reviews and improves its vegetation maintenance programs. This effort is realized in part by evaluating and using information presented in forums such as the Public Utility Research Center vegetation maintenance conference which was held January 26-27, 2009. That report was made available to GRU by the FMEA.

6. Storm Hardening Research

GRU is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

City of Green Cove Springs Electric Utility

321 Walnut Street
Green Cove Springs, FL 32043

Phone: (904) 529-2229
Fax: (904) 529-2232

March 3, 2010

10 MAR -5 PM 1:10
ECONOMIC REGULATION

Marshall Willis, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Storm Hardening Report for Rule 25-6.0343, F.A.C.

Dear Marshall,

Please find enclosed a copy of our final report for 2009 on the subject of Storm Hardening and compliance with Rule 25-6.0343. The City of Green Cove Springs along with the Florida Municipal Electric Association is pleased to provide the enclosed information as required by the Public Service Commission. We are available to answer any questions you may have on our responses.

RECEIVED
MAR 08 2010
Florida Public Service Commission
Division of SSC

Sincerely,

Gregg Griffin
Director Electric Utility

Enclosure
Cc: Barry Moline, FMEA
Don Bowles, City Manager
Marjorie Robertson, City Clerk
GG/mq

City of Green Cove Springs
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

a) City of Green Cove Springs

b) 321 Walnut Street, Green Cove Springs, FL 32043

c) Contact information:

Gregg Griffin
Director Electric Utility
Phone: 904-529-2249
Fax: 904-529-2232
Email: ggriffin@greencovesprings.com

2) Number of meter served in calendar year 2009

3,801

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Green Cove Springs comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the City of Green Cove Springs are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares.

The City of Green Cove Springs is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

We continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in specific areas. We will monitor the results of this research to determine the most appropriate response for system upgrades and hardening.

c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Green Cove Springs address the effects of flooding and storm surges on underground distribution facilities and supporting overhead facilities. The city lies adjacent to the St. Johns River and as such could come under the coastal category. All facilities are installed a minimum of 8 inches above the roadway with appropriate grading to prevent erosion.

The City of Green Cove Springs is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of under grounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research to justify the effort and cost of converting overhead to underground.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Green Cove Springs provide for placement of new and replacement of distribution facilities so as to facilitate safe and efficient access for installation and maintenance. All new residential development is required to be of an underground feed design, even in existing overhead areas. Commercial applications require truck access to the facility and feeder main lines have already been relocated to front lot lines. All facilities are installed and accessible by crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. The City of Green Cove Springs decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

e) Attachments by Others

Attachment policies, guidelines, practices, and procedures at the City of Green Cove Springs are covered by city ordinances and joint use agreements with CATV and telephone entities. The pole attachment agreements between the City of Green Cove Springs and third-party attachers' include language which specifies that the attacher, not the City, has the burden of assessing pole strength and safety before they attach to the pole. The City of Green Cove Springs performs follow up audits of attachments to ensure the attachment is properly installed and maintained.

4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

The City of Green Cove Springs does not own or operate transmission facilities as defined by 69 KV and above. We continue to evaluate the benefits of an inspection program vs. accomplishing the same activity during capital improvement programs like the 4 KV conversion to 13 KV on a portion of our system during 2008. For the remainder of our overhead system we plan on contracting with Osmose or another entity using the sound and bore technique to perform pole inspections on an eight year cycle.

b) Number and percentage of transmission and distribution inspections planned and completed for 2009.

We visually inspect any distribution pole we interface with under normal maintenance work flow patterns. With the limited number of wooden poles in our system (3,012 poles), and plans to upgrade two major sections of 4 KV in the next 4 years, approximately 15% of distribution system, we will have no problem completing these inspections in an 8 year cycle. The first major section of 4KV conversion was completed in 2008, with our crews inspecting over 335 poles or 11% of our system count.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

In 2009 we replaced 4 wood poles on visual inspection. This represents 0.13 % of our installed infrastructure.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

One (1) 30 ft Class 3 Wood poles replaced for damages due to vehicle impact.

Two (2) 30 ft Class 3 Wood poles replaced for damages due to customer vegetation trimming accident felling tree over service drop.

Three (3) 30 ft Class 3 Wood poles replaced due to rot.

One (1) 30 ft Class 3 Wood poles rebuilt due to storm damage.

5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Green Cove Springs contracts annually to trim 100% of our entire system three phase primary circuits including all sub-transmission and distribution feeder facilities. Problem trees are trimmed and removed as identified.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

80% of our system was trimmed in 2009, the balance of dollars spent on Storm related clean up. Scheduled trimming cycle of 100% of our system for 2010 will begin in the fall. The Public Utility Research Center held a vegetation management conference January 26-27, 2009. Through FMEA, Green Cove Springs Electric Utility has a copy of the report and will use the information to continually improve vegetation management practices.

6. Storm Hardening Research

The City of Green Cove Springs is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

Town of Havana Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

a) Town of Havana, Florida

b) P.O. Box 1068, Havana, Florida 32333

c) Contact information: Howard McKinnon, Town Manager
Tele: 850-539-2820
Fax: 850-539-2830
E-mail: hmgr@mchsi.com

RECEIVED
MAR 03 2010
Florida Public Service Commission
Division of SSC

2) Number of meters served in calendar year 2009

1,351

3) Standards of Construction

National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the Town of Havana comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

At this time, the Town of Havana's existing facilities are not designed to be guided by the extreme wind loading standards on a system-wide basis. The Town of Havana is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association. We continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in specific areas. We will monitor the results of this research to determine the most appropriate response for system upgrades and hardening.

c) Flooding and Storm Surges

The Town of Havana is a non-coastal utility, therefore, storm surge/flooding is not an issue.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the Town of Havana provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that the Town of Havana's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. The Town of Havana decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

e) Attachments by Others

The pole attachment agreements between The Town of Havana and third-party attachers include language which specifies that the attacher, not the Town of Havana has the burden of assessing pole strength and safety before they attach to the pole. The Town of Havana performs follow-up audits of attachments to ensure the attachment is properly installed and maintained.

4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

We have a small system with only 1,169 poles. Our electrical superintendent inspects our distribution lines, poles and structures several times per year. He documents this process by completing pole and system change-out forms.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2009

Our electrical superintendent inspects our system continuously. He completed an inspection of our entire system (as planned) in 2009.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2009 and the reason for the failure.

Thirteen of our poles or 1.1 percent was replaced as a result of his inspection. He also replaced some sections of our electrical transmission due to old age.

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2009, including a description of the remediation taken.

Six hundred feet of single phase overhead electrical transmission line were replaced due to old age. One 45' Class 4 pole, Three 30' Class 4, Eight 40' Class 4 and One 35' Class 4 poles for a total of 13 were replaced.

5) Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The Town of Havana's vegetation management policy is formalized. The Town's utility crew is responsible for trimming vegetation along our distribution system. We have written guidelines on vegetation management for them to follow in addition to them relying upon their expertise in knowing the best management practices in this field. We believe our vegetation management practices are sufficient in that our outages due to limb damage are at a minimum. Our policy calls for a third of our system to be maintained each year.

Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2009.

This year, the increased rainfall caused us to trim 75% of our system. Our normal policy is to trim a third of the system. The Public Utility Research Center held a vegetation management conference January 25-26, 2009. Through FMEA, the Town of Havana has a copy of the report and will use the information to continually improve vegetation management practices.

6. Storm Hardening Research

The Town of Havana is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext.1, or bmoline@publicpower.com.

Homestead
Energy Services

10 FEB 22 AM 10: 16
ECONOMIC REGULATION

02/18/2010

Marshall Willis
Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Dear Mr. Willis:

Enclosed please find a hard copy of Homestead Energy Services Storm Hardening Report, pursuant to Rule 25-6.0343, F.A.C., for calendar year 2009. Also enclosed, is a CD containing supporting data from Osmose Utilities Service Inc., which is the firm contracted to do the work as well as our spreadsheets.

Should you have any questions with regards to the enclosed, please feel free to contact me at my office, 305-224-4707 or you may email me at kkonkol@homesteadenergy.org.

Regards,

Kenneth J. Konkol
Assistant Director of Utilities

- Energizing Your Hometown -

675 North Flagler Avenue • Homestead, Florida 33030
Phone: 305-224-4700 • Fax: 305-224-4769 • Email: hes@homesteadenergy.org

Homestead Energy Services
Homestead, Florida
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) **Introduction**

   a) *Homestead Energy Services, Homestead Florida*

   b) *675 N. Flagler Ave. Homestead, Florida 33030*

   c) *Kenneth J. Konkol, Assistant Director Ph. (305) 224-4707 Fax (305) 224-4769 kkonkol@homesteadenergy.org*

2) **Number of customers served in calendar year 2009**

   20,827

3) **Standards of Construction**

   a) National Electric Safety Code Compliance

   Construction standards, policies, guidelines, practices, and procedures at Homestead Energy Services comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

   b) Extreme Wind Loading Standards

   Construction standards, policies, guidelines, practices, and procedures at Homestead Energy Services are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares.

   Homestead Energy Services is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at Homestead Energy Services address the effects of flooding and storm surges on underground distribution facilities and supporting overhead facilities.

Homestead Energy Services is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at Homestead Energy Services provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

All new residential services are in the front lot and are underground.

e) Attachments by Others

Electrical construction standards, policies, guidelines, practices, and procedures at Homestead Energy Services include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. All of these items are part of the Pole Attachment Agreements that Homestead Energy Services enters into with each attaching party.

4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

All transmission poles are concrete.

Wooden distribution poles are inspected in accordance with standard industry guidelines including sound and bore and loading evaluations. HES employs a contractor to perform pole inspections on an eight-year cycle. All new wooden poles are CCA as are the majority of the poles currently installed in the system. Class II poles are used for new construction or for any Class IV poles that are found to be in need of replacement.

Annually, a thermographic inspection is performed on all of the feeder circuits and any problems noted are repaired. This inspection was completed in August, 2009.

b) Number and percentage of transmission and distribution inspections planned and completed for 2009.

The entire transmission system was inspected in 2005. All transmission structures are concrete.

During calendar year 2009, 900 distribution poles were inspected or 13.5% of the total.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

No transmission poles failed inspection in 2005.

Of the 900 distribution poles inspected, 137 failed the inspection. Of these, 75 were rejected for decayed tops, 53 for shell rot at or below the ground line, 3 for split tops, 1 for shell rot above the ground line, 1 for decay pockets above the ground line, and 1 for heart rot above the ground line.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

Transmission Poles: None

Distribution Poles:

- *Replaced 36 decayed Class IV 45' poles with Class II poles*
- *Replaced 12 decayed Class IV 35' poles with Class II poles*
- *Seven (7) poles identified in the inspection report as needing work were subjected to further evaluation and found to be in sound condition*
- *Repaired 20 Class IV 45' poles by topping or other means*
- *Removed 8 Class IV 45' poles from system that were no longer deemed necessary*
- *Transferred facilities from 27 Class IV poles to Class II poles. These poles belong to AT&T and were replaced by them. Through a joint use pole attachment agreement we attach to their poles and they to ours.*
- *Sixty-nine (69) distribution poles needing replacement are being bundled into one project and will be contracted out.*
- *It is anticipated that all poles identified in the 2008 and 2009 inspection reports as needing work will be completed by December 31, 2010.*

5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

Homestead Energy Services employs a contractor for tree trimming services. Homestead's geographic area is small and it is estimated that the entire system is trimmed on a two-year cycle. The City of Homestead recently enacted Code changes that require property owners to keep vegetation on private property trimmed to maintain six feet of clearance from HES facilities. There are no issues with vegetation management for transmission facilities.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

See 5a.

6. Storm Hardening Research

Homestead Energy Services is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com

6727 Broadway Avenue
Jacksonville, Florida 32254-3715

JEA

February 19, 2010

10 FEB 23 AM 10:18
ECONOMIC REGULATION

Mr. Tim Devlin, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Dear Mr. Devlin:

Please find the enclosed JEA Storm Hardening Report for 2009, pursuant to Rule 25-6.0343, F. A. C. You may direct any inquiries to me.

Sincerely,

Larry G. Pinkstaff
Director of T & D Maintenance
6727 Broadway Avenue
Jacksonville, FL 32254
904 665-4566
pinklg@JEA.com

JEA
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2009

1) **Introduction**

   a) Jacksonville: JEA

   b) 21 W Church St, Jacksonville, Fl 32202-3139

      i) Ted Hobson, VP, Fuels, Purchased Power & Compliance, Office-904-665-7126 Fax 904-665-4238

2) **Number of meters served in calendar year 2009:**

   JEA served approximately 417,500 electric meters in 2009.

3) **Standards of Construction**

   a) **National Electric Safety Code Compliance**

   JEA's construction standards, policies, guidelines, practices, and procedures comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

   b) **Extreme Wind Loading Standards**

   JEA's construction standards, policies, guidelines, practices, and procedures are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares. These standards primarily affect electric transmission structures 60 feet and taller, and require those structures to withstand winds up to 120 mph for JEA's service territory.

   JEA is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association (FMEA).

   c) **Flooding and Storm Surges**

   JEA historically has experienced very little flooding of our distribution or substation facilities, even during storms and consequently has not developed specific policies or guidelines addressing the effects of flooding and storm surges on our underground distribution or supporting overhead facilities. JEA does have a written Storm Policy and associated procedures that address shutting down specific generating plants when a Category 3 storm or greater causes flooding or storm surges that threaten the safe operation of the plants.

JEA is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through FMEA.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at JEA provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

During the design process, traffic patterns, trees, lot lines, environmental hazards and future customer needs in undeveloped areas are taken into consideration when determining the best location for poles and equipment. Consideration is also taken when designing circuits to ensure that line crews and troubleshooters will have a suitable means of approach in order to reach the facilities and equipment for the purpose of operation and maintenance. JEA's standard construction of vertical framing at the right-of-way line reinforces this by preventing overhang into private property and allowing bucket truck access to equipment on the back of the pole due to phase separation requirements. JEA has very few facilities requiring rear property line entrance and has not constructed any rear-entrance facilities in over 30 years.

e) Attachments by Others

JEA requires permits for all attachments by others to our poles. This permit requires the entity requesting to attach to a JEA pole to provide the design calculations to insure the addition of their attachment does not violate the requirements of the NESC in effect at the time of the request. In addition, attachments are generally limited to 7% of the total wind load capacity of the structure.

4. Facility Inspections

a) **Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.**

Transmission-JEA utilizes a contractor to perform the Transmission inspection. JEA has 240KV, 138KV and 69KV circuits. Every transmission circuit is on a 4-year cycle with the exception of the "critical" N-1 240KV circuits which are inspected on a 2-year cycle. JEA inspects approximately 30 circuits each year.

Distribution- JEA utilizes an external contractor to perform a general pole by pole inspection (sound and bore with excavation) for 1/8 of the distribution system annually using the NESC standards for decay and reject status. The poles are treated at ground level for poles that are

5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

Transmission-JEA maintains transmission line clearances and reporting in accordance with the NERC Reliability Standard FAC-003-1 requirements.

Distribution-JEA has maintained a 3-year trim cycle for more than 8 years on feeder and lateral circuits. The cycle was verified by benchmarking and an engineering study performed in 2000. In an effort to improve reliability even further – as requested by our customers – JEA started a 2.5 year trim cycle for the feeder and laterals in FY2007 (October 2006) and completed the first 2.5 year trim cycle in April 2009.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

JEA fully completed all 2009 vegetation management activities described above. The FRCC audited the NERC standard for vegetation FAC-003-1 in 2008 at JEA for the past 3-year period. JEA was found fully compliant. In December 2009, JEA self certified compliance for the FAC-003-1. Vegetation management activities for FY10 are on schedule.

The Public Utility Research Center held a vegetation management conference March 5-6, 2007. Through FMEA, JEA has a copy of the report and will use the information to continually improve vegetation management practices.

6. Storm Hardening Research

JEA is a member of the FMEA, which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

installed 15-years or older. JEA crews inspect laterals with more than 3-outages in 90-days for insulators, arrestors, cross arms, grounding and pole integrity.

b) Number and percentage of transmission and distribution inspections planned and completed for 2009.

Transmission- JEA did a complete transmission inspection in 2004 - 2005 in response to the storms of 2004. JEA began its 4 year cycle again in October 2006. In 2007 all of the 230kv circuits were inspected and all of the 138kv circuits were inspected. The 69kv circuits were scheduled and completed in 2008. In 2009 the remaining 69kv circuits and the N-1 230kv circuits were inspected. Additionally in 2009 a corrosion inspection of 38 galvanized 230kv structures were analyzed including pier and footer condition. The inspection checked for galvanizing and corrosion metal loss.

Distribution- In 2009, JEA completed the assigned circuits in accordance with our schedule, approximately 40 circuits per year.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

Based on 2009 inspections: Transmission-(24) 69kv wooden poles (1.4%) failed on reject at ground level.

Based on 2009 inspections: Distribution-13% of poles failed inspection. Approximately 70% of the failures are for ground decay and 30% of the failures are for pole top decay.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

Based on 2008 & 2009 inspections: Transmission- The remaining 69kv poles found in the 2008 inspection and not replaced in 2008 have been replaced (94 poles). The (24) poles found in the 2009 inspection are scheduled for replacement in spring 2010. Seven of the twenty four are being replaced with spun concrete. Two 138kv concrete poles are scheduled to be replaced in spring 2010. One was damaged by lighting and the other by vehicle accident.

Based on 2009 inspections: The poles listed as danger poles (around 1%) are replaced in a 15-day cycle. The priority 2 poles are put on a list and scheduled for repair. In 2009, 2,801 poles were replaced. Since 2006, 4196 poles have been replaced. The poles that are not rejected per NESC but older than 15-years are ground treated.

Keys energy services

(305) 295-1000
1001 James Street
PO Box 6100
Key West, FL 33040-6100
www.KeysEnergy.com

UTILITY BOARD OF THE CITY OF KEY WEST

Fed Ex 8690 8023 4543

February 23, 2010

Mr. Tim Devlin, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

RE: Florida Public Service Commission Storm Hardening Report - 2009

Dear Mr. Devlin:

In accordance with FPSC's rule #25-6.0343, please find attached one bound copy of the Utility Board of the City of Key West's (Keys Energy Services - KEYS) *"2009 Storm Hardening Report".*

We have also enclosed one copy of the final report in digital format (CD enclosed).

If any questions develop during your review, please do not hesitate to call me at 305.295.1042.

Sincerely,

Dale Finigan
Director of Engineering/Control Center
Dale.Finigan@KeysEnergy.com

DF/ba

c:
L. Tejeda, General Manager & CEO
J. Wetzler, Asst. General Manager & CFO
D. Price, Director of T&D
A. Tejeda, Director of Customer Service
M. Alfonso, Supervisor of Engineering
J. Barroso, Communications/Marketing Coordinator
Barry Moline, FMEA
File:PSC

10 FEB 25 PM 4: 24
ECONOMIC REGULATION

Keys energy services

2009 Report
PSC Rule # 25-6.0343

SECTION 1
Introduction/Contact Information

Utility Name: The Utility Board of the City of Key West, Florida
dba, Keys Energy Services (KEYS)

Address: 1001 James Street
P. O. Box 6100
Key West, Florida 33040

Contacts: Lynne Tejeda, General Manager/CEO
Ph. 305-295-1020
Fax 305-295-1034
Lynne.Tejeda@KeysEnergy.com

Dale Z. Finigan, Director of Engineering/Control Center
Ph. 305-295-1042
Fax 305-295-1044
Dale.Finigan@KeysEnergy.com

NOTE: This report was developed by Dale Finigan. For questions and/or clarifications please call Dale Finigan at 305-295-1042

SECTION 2
Utility History and Description

History/Company Profile:

- Municipal Electrical Company Since 1943
- Five Members Elected Utility Board
- 157 Employees
- KEYS Maintains and Operates Transmission, Distribution and Generation
- Number of Meters – 28,546
- Member of FMPA
- FMPA Primary Power Provider

Service Territory:

- Key West Florida and the Lower Florida Keys

Electrical Facility Description:

- Transmission
  - -Voltage Level -138kV and 69kV
  - -Circuit Miles -68 Miles
  - -Age of Poles -1965 through 2004
  - -Pole Types Qty:
    - -Concrete -700
    - -Steel -150
    - -Wood - 0
- Distribution:
  - -Voltage Level -13.8kV
  - -Circuit Miles -216
  - -Age of Poles -1950-2009
  - -90% Aerial
  - -Pole Types Qty:
    - -Concrete - 4,836
    - -Steel - 0
    - -Wood - 9,394
- Substation:
  - -Voltage Level -138kV, 69kV and 13.8kV
  - -Quantity of Substations: -9
- Generation:
  - -Quantity of Units -6
  - -Type - Low Speed Diesel, Combustion Turbine
  - -Capacity -108 MW
  - -Black Start Capabilities for Emergency

Customer Profile:

- Total of Customers -29,744
- Breakdown:
  - -Residential -81.8%
  - -Commercial -13.2%
  - -Others - 5.0%
    (Street Lights, churches)

Load Profile:

- 2009 Peak Demand -137.4MW
- 2009 GWH -681.9GWH

SECTION 3
Standards of Construction

3a) National Electric Safety Code (NESC) Compliance:

•KEYS' current construction standards, policy, guidelines, practices and procedures comply with the NESC 2007 (ANSI C-2). These new standards took effect on February 1, 2007.

•KEYS' electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facilities' initial construction.

3b) Extreme Wind Loading Standards:

•KEYS' is in compliance with the new NESC "Extreme Wind Load" requirement for KEYS' Distribution System for:

1) New construction
2) Major planned work, and relocation of facilities
3) Targeted critical infrastructure

•KEYS has been very aggressive in analyzing the wind impacts on its electrical facilities, and in 2006 KEYS' structurally studied the modifications needed in order to accomplish/adhere to new Florida Public Service Commission (FPSC) Rule. The following was performed by KEYS in 2006:

1) Structurally analyzed current system's capacity
2) Modified construction standards on distribution system to adhere to the "Extreme Wind Design"
3) Ordered new material in order to construct to the 150MPH
   -poles designed to meet new wind load
   -anchoring and down guy systems
4) See Section (4) for status "report on poles replaced"

•KEYS submitted a significant amount of back up support data in its 2006 report. If additional (copies of KEYS' structural are needed please contact KEYS)

3c) Flooding and Storm Surge:

•KEYS' Construction Standards, for underground construction, has always incorporated the elevation of switches and padmount transformers to the" FEMA Flood Elevation" in order to prevent electrical damage due to storm surge and flooding. This long standing policy for over 30 years, proved to be very successful during Hurricane Wilma. Significantly flooding occurred over the entire Florida Keys and Key West from 4 to 12 feet. No damage occurred to KEYS' underground system as a result of flooding due to this longstanding construction standard.

SECTION 3 continued

3d) Safe and Efficient Access of New and Replacement Distribution Facility:

•This issue is aggressively been reviewed and addressed. Keys Energy Services and the City of Key West are investigating options on how to replace approximately 600 wood poles that are located in easements and right-of ways that are inaccessible (poles behind customers' property). Efforts to date:

1) at&t, Comcast KEYS and City formed a committee to study issues and solutions
2) KEYS performed impact study on options
3) KEYS' Utility Board Resolution #748 on Easement Inaccessibility policy to install new and upgraded facilities at a safe and accessible location
4) KEYS presented report to City of Key West for direction
5) KEYS developed website to keep public/customers informed
6) City of Key West and KEYS have reconvened the committee, and we are performing more field analysis of affected areas. Both agencies are looking at customer's riser relocation impact if "high voltage lines" are relocated.
7) A recommendation and decision is expected to be made late this year

•Electrical construction standards, policies, guidelines, practices, and procedures KEYS provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that KEYS' facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible.

3e) Attachments by Others:

•Electrical construction standards, policies, guidelines, practices, and procedures at KEYS include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. We inspect these attachments on an 8 year cycle.

SECTION 4
Facility Inspections

4a) KEYS' Policy, Guidelines, Process, and Procedures as They Relate to Pole Testing:

•Distribution Poles:

1) KEYS' contracted with Osmose, Inc. in 2006 to perform a detail testing of **100%** of KEYS' utility poles at one time.
2) KEYS elected not to delay, and currently tested all poles for NESC compliance. Osmose commenced testing in December of 2006. Testing of 100% of poles was completed by May of 2007.
3) In summary, Osmose performed the task below:

Item #	Task Description
1	Site visit and visual inspection of pole (concrete and wood)
2	Sound and bore test for wood
3	Excavated base- soil around wood pole-- Reject pole
4	Excavated base- soil around wood pole-- External treat
5	Excavated base- soil around wood pole-- External treat, then reinforce using cost items below
6	Internal treat of wood pole
7	Difficult accessible (poles located in rear lot lines)
8	Ground wire repair near pole base
9	Load calculation assessment per pole as per PSC
10	Digital images/photos for reject poles and code problems in items (18,19 and 20)
11	Computerized report of task performed per pole (includes 3 copies of software)
12	Install "Guy Guard" on Down Guy
13	Osmose C2 external steel reinforce installation at base (35' wood pole) (All labor and material)
14	Osmose C2 external steel reinforce installation at base (40' wood pole) (All labor and material)
15	Osmose C2 external steel reinforce installation at base (45' wood pole) (All labor and material)
16	Down guy wire and anchor rod inspection (6" below grade)
17	Identify/ document locations of missing KEYS' pole # on the pole
18	Identify/document locations that the " pole ground rod" extends above grade/ground
19	Identify/document ADA non-compliance (b/w pole and any object) if clearance is lower then 33" (on sidewalks)
20	Identify/document locations that clearance between pole and fire hydrant is - less than 4 feet (at ground level)
21	Identify/document locations where clearance b/w OH wire and Structures is less then 10 ft. (overhead)
22	Joint Use Survey of 2 other utility attachments (for each of the foreign attachments)

•Transmission Poles:

1) KEYS has no "wood" transmission poles.
2) Since KEYS has only one incoming transmission line into its service territory. This is a combination of concrete and metal poles.
   - •KEYS has placed a contract to repair concrete pylons and concrete poles shown to have damage after the last inspection. This work is currently underway.
   - •KEYS has completed cleaning and repair of metal transmission poles with rust damage.
   - •KEYS is developing specifications and going out for bid for protective coating of metal poles.

SECTION 4 continued

•Detailed helicopter inspections of all concrete poles. This aerial inspection is performed every 2 years.
•Infrared survey - KEYS performs a 100% infrared inspection every 2 years. Expected to be performed in summer of 2010.

4b) Number and Percent of Transmission and Distribution Pole Inspections planned and completed:

•Transmission Facility Inspections
➡Concrete Foundations -100% inspected in 2008.
➡Aerial inspection - 100% inspected in 2007

•Distribution Facility Inspection
➡See detail summary table below.

4c) Statistical data on T&D poles failing inspections

•Transmission
➡Number of poles failed (rejected) -0.0
➡Percentage of rejected failed rate -0.0%

•Distribution

POLE TESTING SUMMARY DISTRIBUTION - (as of 2006)			
Test Area	**Keys Energy**	**AT&T**	**Combined Totals**
Total poles tested	11,100	3,171	14,271
Total concrete poles tested to date	3,647	0	3,647
Total wood poles tested to date	7453	3171	10624
% of Total poles tested to date	100.00%	100.00%	100.00%
Reject/Failed pole Summary			
Total concrete rejects to date	18	0	18
% of total concrete	0.5%	0.00%	0.5%
Total wood pole reject to date	2,232	700	2,932
% of total wood	29.9%	22.1%	20.7%
Reject/Failure Reasons			
% Ground / Shell Rot	75%	n/a	n/a
% Structural Overload	2%	n/a	n/a
% Pole Top Rot	18%	n/a	n/a
% Other	5%	n/a	n/a

SECTION 4 continued

4d) Number and Percentage of T&D Poles Replaced and the Remediation Plan to Correct

•Transmission Facilities Plan

No transmission facilities failed inspection. Minor concrete spalling repairs and coating of steel poles to be done in the summer of 2009.

•Distribution Facilities Plan

KEYS has completed 100% field check of all poles in 2007. The Utility Board has already approved a very aggressive schedule to correct and replace failed facilities (Tab 7 & 8 for detailed plan). Below are some of the highlights of the remediation plan:

- ➡KEYS has entered into a 5 year contract with Diversified Inc. (line construction company) to provide construction labor services to replace approximately 2,300 poles over 5 years. The $17 million dollar contract is for approximately 150,000 man-hours to replace the 2,300 poles with "Storm Harden" facilities.
- ➡KEYS approved a 5 year contract with USI (concrete pole manufacture) to manufacture approximately 2,500 new concrete poles designed to the new Extreme Wind Load Design.
- ➡Pole Replacement Plan:
  - In 2007 KEYS replaced 280 rejected/failed poles
  - In 2008 KEYS replaced 475 rejected/failed poles
  - In 2009 KEYS replaced 620 rejected/failed poles

YEAR	Estimated Quantity to be Replaced
2010	500
2011	445

SECTION 5
Keys Energy Services
Vegetation Management Program

Mission:

- Keys Energy Services (KEYS) is dedicated to maintaining safe clearances surrounding electrical facilities to reduce outages and increase the public's safety and awareness. This is achieved through various programs including, continuous zone trimming, tree safety press releases, Tree Give-A-Way, and by responding to Customer Service requests for vegetation management. The following information describes KEYS programs in greater detail.

KEYS Service Area:

- KEYS' service area consists of 216.30 miles of 3 phase distribution lines & 66.3 miles of transmission lines.

KEYS Staff and Contractual Crews:

- KEYS have a total of 5 tree trimming crews, 2 in-house crews and 3 contractor crews. KEYS in-house crews maintain all customer request orders, revisit tree trimming list as well as zone trimming and tree removals. Contractor crews specifically work in zone trimming and tree removals. All worked is compiled and documented, such as footage, tree removals, zone trimming and man-hours it takes to complete these zones.
- These crews have received special training in the line clearance tree trimming and follow arborist guidelines for utilities which specify how trees should be cut. Industry standards specify the minimum safety clearances that must be maintained for safety and for reliability.

KEYS Trim Cycle Information:

- KEYS' implemented a policy to maintain a 2 year cycle for system trimming, which KEYS has been able to complete in this time frame. This 2 year cycle has been in place since 2000 which includes trimming of all 3 phase feeders, laterals, secondary and communication conductors.
- KEYS perform a quarterly maintenance of tree clearances on all of the 66.3 miles of transmission lines and maintain these clearances.
- KEYS averages approximately 7 customer requests a day, the low volume of requests are due to the cycle trimming that is in place. KEYS in house crews spend approximately 25% of their time on customer generated requests, which include service trims, communication and conductor trims. When not working on customer request the KEYS crews work on revisits and zone trimming.

SECTION 5 continued

- While zone trimming contractor crews as well as KEYS tree crews remove all invasive trees in the right-of-way and easements. Trees are cut to ground level and sprayed with an herbicide to prevent re-growth.

Problem Trees Outside Of Right-Of-Ways or Easements:

- For customer trees that are infringing into KEYS lines, KEYS will make contact with the customer and explain to the customer the safety issues that exist with a tree getting into high voltage lines. Most customers are receptive to the tree removal once contacted by KEYS.
- KEYS has initiated a quarterly revisit list for the locations throughout the system where costumer's trees are infringing on KEYS lines and are not willing to have the tree removed. This revisit list was just put into place in late 2006 and is working well. The quarterly revisit list is necessary due to KEYS' tropical climate and the substantial growth rate throughout the year.
- KEYS is also looking into a tree replacement program as an incentive for reluctant customers to allow the removal of problem trees.

Addressing appropriate planting and landscaping:

- KEYS has a tree give-a-way program that has been in place since 1995 to help promote energy conservation and public awareness. KEYS help the customer determine the proper placement of the tree to maintain adequate clearance from facilities with one on one consultation. KEYS review a site layout of the customer's yard and advice on the best placement for shade benefit and proper clearance. During the consultation, KEYS gives the customer a brief summery of what type of problems may occur if a tree was to be placed under the high voltage lines/service drops. Generally, the customer agrees to plant the tree where KEYS indicates on the layout of the property resulting in fewer future tree trimming problems and increases safety.

Benchmark Reports on Vegetation Management:

- KEYS implementation of the 2 year trim cycle, revisit list, tree removals, tree give-a-way program, and public service announcements, responding to customer request and hiring contractor crews for zone trimming has allowed KEYS to reduce outages.
- KEYS maintain records and produce an annual report of all outages throughout the system. In 2009, KEYS had 2 reclosers, 0 feeder outage, and 5 lateral outages due to trees. These proactive measures have resulted in the low number of occurrences due to KEYS' Vegetation Management Program. KEYS will strive to continue to improve this program and further reduce outages and increase safety to the public and KEYS employees.

SECTION 5 continued

LINE CLEARANCES

KEYS strives to maintain the following line clearances where practical as follows-

- 15 feet clearance on all transmission lines.
- 10 feet clearance on all open conductors greater than 600 volts (where possible)
- 5 feet minimum clearance on all open conductors less than 600 volts. (Where possible)
- 3 feet minimum clearance on all communication conductors.

The Public Utility Research Center held a vegetation management conference January 26-27, 2009. Through FMEA, Key West/Keys Energy Services has a copy of the report and will use the information to continually improve vegetation management practices.

SECTION 6
Storm Hardening Research

Key West/Keys Energy Services is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext-1, or bmoline@publicpower.com.

SECTION 7
Supplemental Data

KEYS ENERGY SERVICES

Storm Hardening Program

"POWERFUL"

Status Report

2009

Dale Z. Finigan
Director of Engineering & Control

Public Service Commission

Mandates

Pole Inspection 8-yr Cycle
completed

Design/Construct New Facilities to EWL

Critical Customers
EOC, Hospital, Port

Elevated Underground Facilities
Completed

Inaccessible Facilities
(Easements)

Status Reports Yearly PSC
Completed

Florida PSC – New Rules # 25-6.0343

Pole Inspection 8-yr Cycle

Completed

Comprehensive Inspection Includes:

Contractor Procured:

PSC ... POLE TESTING

Design/Construct New Facilities to EWL

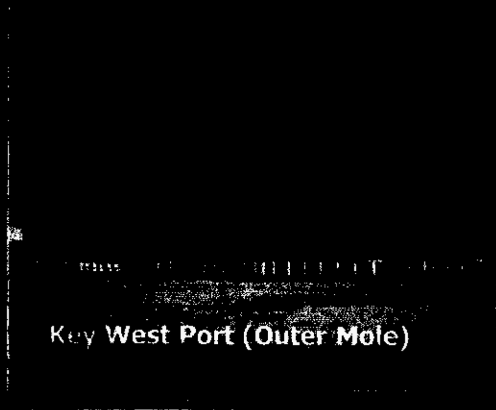
PSC RULE – Construction to "Extreme Wind Design"

new and rebuilt

Modify Construction Standards

Manufacture Procured:

Critical Customers
Port, EOC, Hospital



PSC RUL Critical Facility Upgrade

Key West Port (Outer Mole)

EOC (County)

LKHS (Hospital)

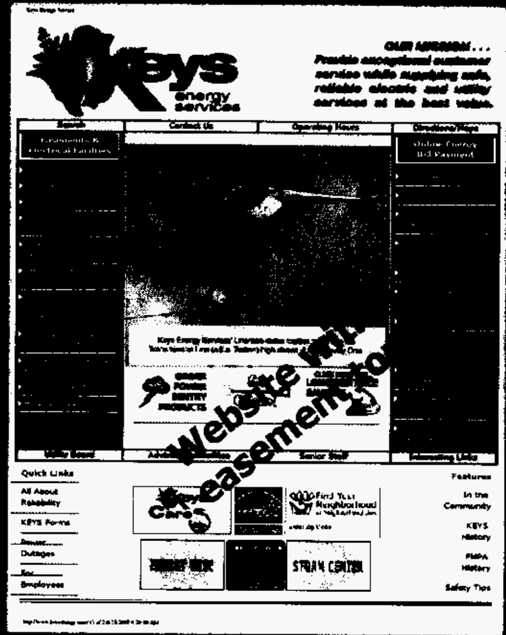
Elevated Underground Facilities

Completed

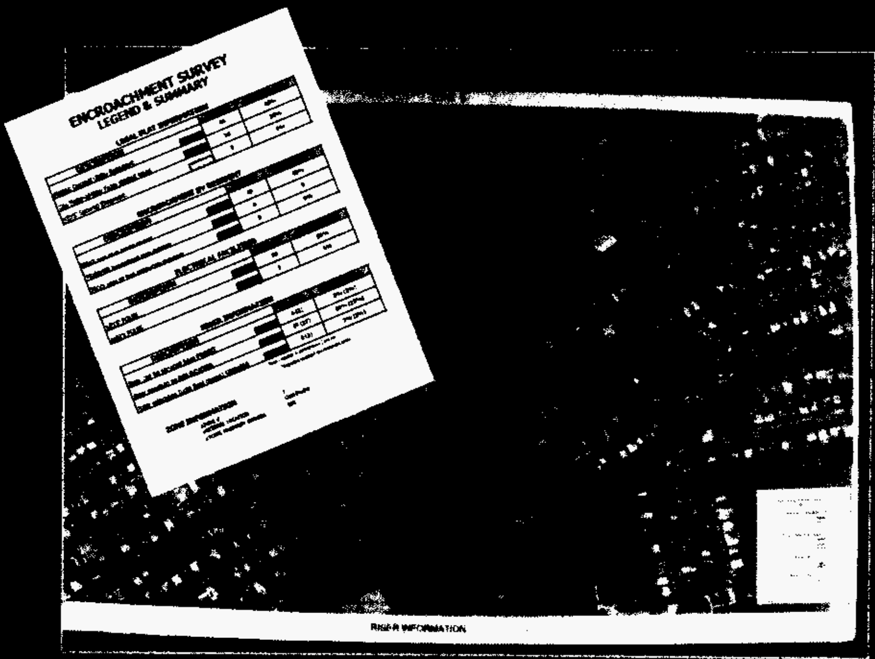
KEYS Current Standard

PSC RULE – Elevation of Underground Facilities

Inaccessible Facilities (Easements)

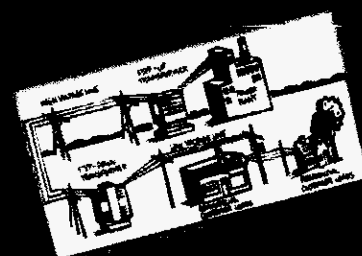


Status Update on PSC Rule



PSC Rule – Inaccessible Facilities

PSC Yearly Reporting
Completed



PSC Reporting Requirements

[illegible]

- [illegible]
- [illegible]
- [illegible]
- [illegible] clearance [illegible]
- [illegible] UG facilities
- Coordination with 3rd party utilities that attach [illegible] and Comcast [illegible]
- [illegible] National [illegible]
- [illegible]

PSC Rule [illegible] Storm Hardening Yearly report to PSC

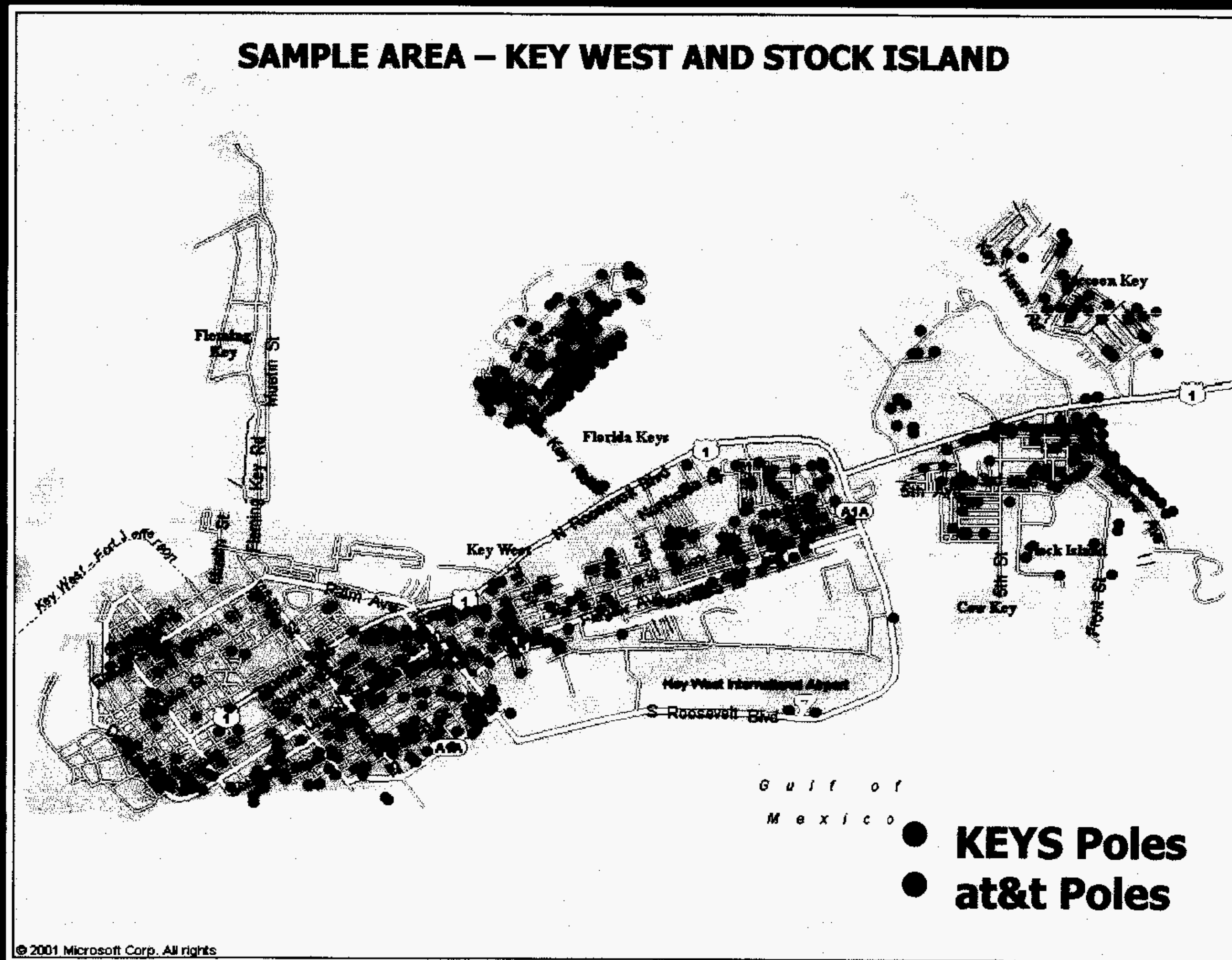
Status Summary

Typical Pole Installation

Proposed Scheduling

Location	Rejected Poles	Estimated Completion	Notes
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		[illegible]
[illegible]			
		[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]

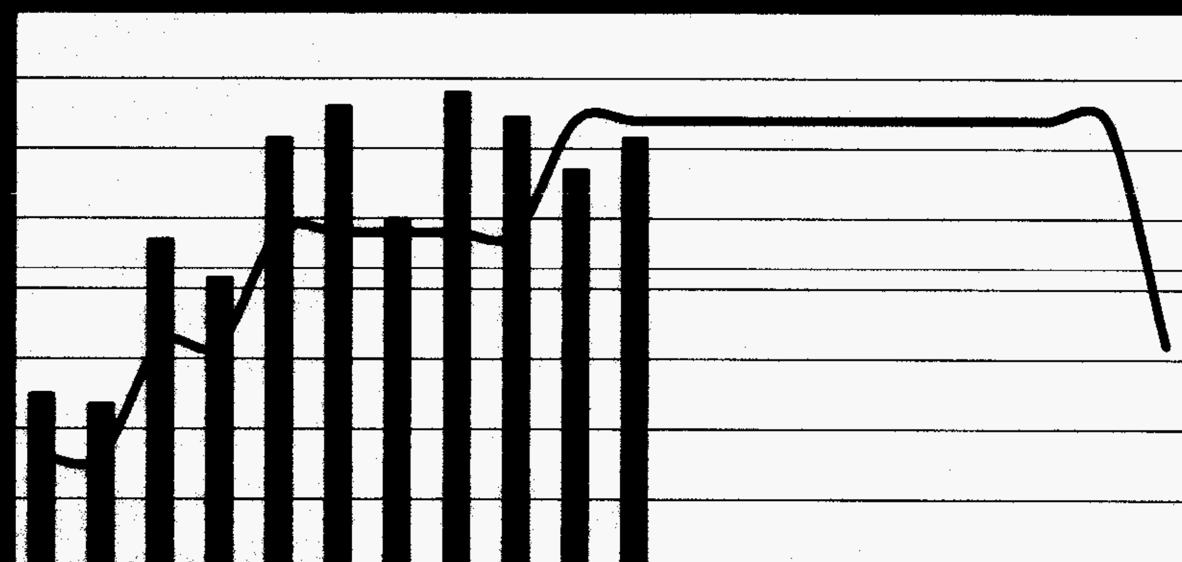
Reject Poles



Poles Replaced Per Quarter

(past and projected)

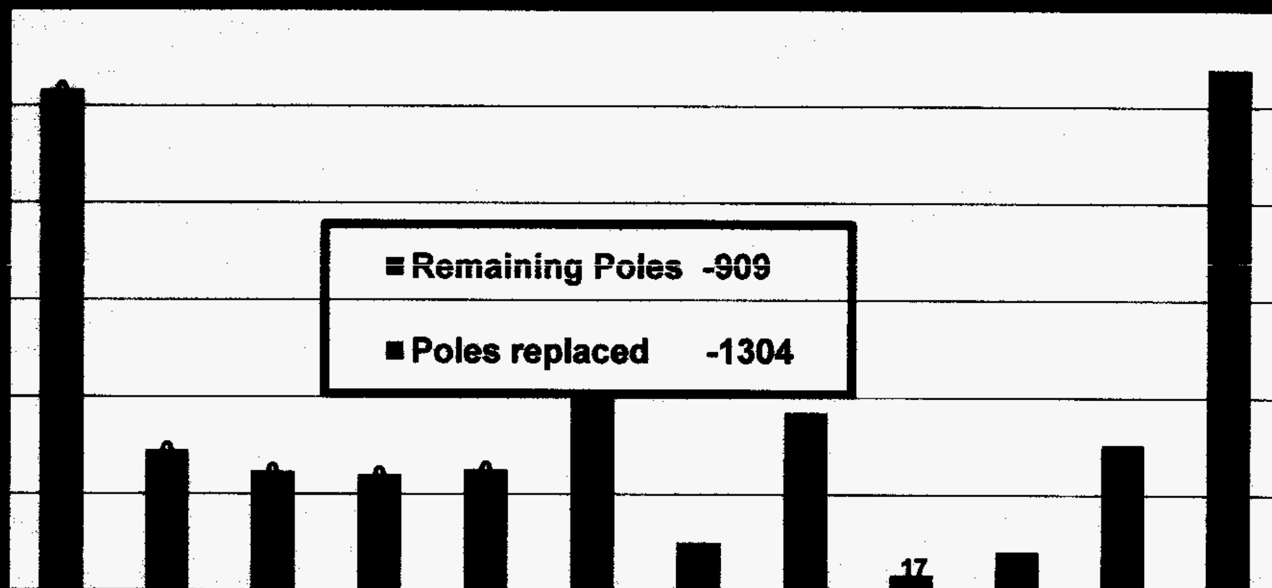
Replacement Qty vs Crew Size



Notes

Replacement Status

(by Key location)



Fund Disbursement

Project set up and Standard Design

Material

Pole Testing

Contractors

- *Total Spent to Date* - *$ 6.8 M*
- *Total Funds Budgeted* - *$ 16.4 M*

- **Projected Total Project Cost**
  - With all Easements Reclaimed - $16.1 M
  - OR
  - With Easement Facilities Relocated - $17.1 M to 18.8 M

Misunderstandings
&
Misconceptions

Potential Customers and Employees

Cust... think upgrades are done ... quickly
It's a ... program. KEYS has only completed 2 years

Just because it's a concrete pole it does not mean it is at the 150 mph load capacity (existing concrete poles are "NESC Code Compliant" at the time they were installed. They will remain).

After ... years into the program
- Not every pole will be concrete.
- ... of the distribution will be at 150 mph "extreme code"
- remaining facilities will be upgraded to the 150 mph extreme code at the pole's end of life
- ... the pole has decayed below the 66% strength per NESC and ... Code)
- In 2013 KEYS will have to retest all its wood poles again per the PSC ... cycle

KUA
KISSIMMEE UTILITY AUTHORITY

Engineering & Operations Department
P.O. Box 423219 • Kissimmee, Florida 34742-3219
407/933-7777 • Fax 933-4178

February 25, 2010

Marshall Willis
Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Kissimmee Utility Authority Storm Hardening Report
PSC Rule 25-6.0343, FAC
Calendar Year 2009

Dear Mr. Willis,

Please find enclosed the Storm Hardening Report for calendar year 2009 for Kissimmee Utility Authority (KUA). This report is file in accordance with the subject Florida Public Service Commission Rule.

Please contact me if you require additional information or have any questions.

Sincerely,

Kenneth L Davis Ken Davis
2010.02.25 11:14:58 -05'00'

Kenneth L. Davis
Vice President
Engineering & Operations

KISSIMMEE UTILITY AUTHORITY

CALENDAR YEAR 2009
STORM HARDENING REPORT TO THE FLORIDA PUBLIC SERVICE COMMISSION

PURSUANT TO RULE 25-6.0343, F.A.C.

Kissimmee Utility Authority
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

This report is filed in response to the above referenced rule for:

a) Kissimmee Utility Authority (KUA)

b) 1701 West Carroll Street
Kissimmee, Florida 34741

Mailing Address:
P.O. Box 423219
Kissimmee, Florida 34742-3219

c) Contact information:

Kenneth L. Davis
Vice President – Engineering & Operations
Phone: (407) 933-7777 Ext 1210
Fax: (407) 933-4178
Email: kdavis@kua.com

2) Number of customers served during calendar year 2009

During calendar year 2009 KUA served an average number of 68,108 customers.

3) Standards of Construction

a) National Electric Safety Code Compliance

All construction standards, policies, guidelines, practices and procedures at KUA comply with the National Electrical Safety Code, ANSI C-2, (NESC). All electrical facilities constructed prior to February 1, 2007, were governed by the NESC edition in effect at the time of construction or later revisions of the code as determined by KUA. All facilities constructed on or after February 1, 2007, are constructed in compliance with the 2007 edition of the NESC.

b) Extreme Wind Loading Standards

KUA standards for distribution construction have been adopted that are guided by the extreme wind loading standards specified by Figure 250-2 (d) of the 2002 edition of the NESC (or later revisions as appropriate) for the following categories of construction initiated after December 10, 2006:

1) New construction;
2) Major expansions, rebuilds or relocation projects
3) Individual pole replacements for certain targeted "critical" structures such as main three-phase underground riser poles, poles containing three-phase transformer banks with 75 KVA or larger transformers, and poles within main three-phase feeders. Although this guideline was implemented earlier, the policy was officially issued for all construction on or after December 20, 2006.

KUA's five-year budget plan includes allocation of $50,000 each year for target replacements.

KUA standards for construction of new transmission facilities have met or exceeded NESC extreme wind loading standards since approximately 1984. Extreme wind loading standards cover construction of transmission facilities for the following categories:

1) New construction;
2) Rebuilds or relocation projects;
3) All individual pole replacements.

Projects have been planned and designed for the replacement of approximately 26% of the remaining wood transmission structures. These projects have been delayed slightly due to the dependence on scheduling of road widening projects by local governmental agencies. At least a part of these replacements should be completed in 2010.

We continually evaluate our system to determine any immediate needs for system upgrades and hardening in specific areas. We take very opportunity to evaluate any situations that might afford us the ability to replace existing poles or facilities to increase their strength ratings. KUA is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

c) Flooding and Storm Surges

The KUA service territory is not in a coastal area and therefore does not contain areas subject to storm surges. The KUA service territory has not experienced any significant flooding, even as a result of major storms, and therefore has not adopted any specific standards or policies addressing the protection of the distribution system. Any low areas that may be more susceptible to flooding have been identified and are monitored when the flooding potential is present.

Through the Florida Municipal Electric Association, KUA is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Construction standards, policies and practices at KUA provide for the placement of all facilities so as to provide for safe, unobstructed access. All new distribution facilities are constructed on front-lot lines. KUA has not constructed any new facilities on rear-lot lines for a number of years and therefore has a very minimal amount of existing rear-lot construction. When feasible, any infrastructure currently constructed on rear-lot lines is modified to front-lot during any major replacement or upgrade project. All existing rear-lot construction areas are also monitored for reliability, maintenance and operational problems. Significant problems with any of these issues will result in a planned conversion to front-lot construction. KUA allocates funding each fiscal year for these types of conversion projects.

e) Attachments by Others

KUA standards, policies and practices include consideration of pole loading capacity for both electrical infrastructure and for attachments to KUA poles by others. KUA has taken the opportunity to negotiate new pole attachment agreements with attaching entities as the existing agreements reach the end of their term. The new attachment agreement addresses this issue in detail and requires the appropriate loading analysis on poles for which attachments are being requested. These agreements place more of the burden of assessing pole strength on the attaching entity. KUA does spot check follow up audits to review attachments made to KUA poles. We are also in the second year of a two-year program to inspect all attachments to KUA poles.

4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

KUA guidelines, practices and procedures for the inspection of transmission and distribution facilities are as follows:

Transmission System:

KUA guidelines, practices and procedures include inspection all wood transmission poles on a biennial cycle. Wood transmission poles are inspected via outsourcing to a pole inspection contractor. The pole inspection process includes sound and bore and ground-line excavation and treatment.

During the pole inspection process facilities are also visually inspected for any signs of broken grounds, broken or damaged guy wire, missing guy wire covers, and other problems that can be seen via a visual inspection. Infrared scans are also conducted on all transmission circuits on an annual basis. Vegetation inspections of all transmission lines are conducted on an annual basis. During this process visual inspection of transmission circuits are conducted for potential problem areas.

Distribution System:

KUA currently targets for the inspection of all wood distribution poles on an eight-year cycle. KUA currently outsources pole inspections to an experienced contractor. Pole inspections include sound and bore and ground-line excavation and treatment. During pole inspections, facilities are also inspected for problems such as missing grounds, broken guy wires, missing guy guards and other problems that can be spotted via visual inspection. Digital photos are also taken of each structure. These photos also enable KUA personnel to review the facility for problem areas.

Infrared scanning of all main distribution feeders is conducted on an annual basis. KUA also currently targets a more thorough visual inspection of all distribution facilities on five-year cycle. Infrared technology assists in locating potential problem areas such as bad connectors, bad insulators and other potential faulty or failing equipment. The scanning process also provides for visual contact with all distribution feeders on an annual basis. Outage data for all distribution feeders is also evaluated on a regular basis. Detailed component by component inspections are conducted on feeders experiencing higher than normal outage incidents.

b) Number and percentage of transmission and distribution inspections planned and completed for 2009.

Transmission

KUA inspects transmission poles on a biennial cycle. All KUA transmission poles were inspected during 2009. A total of 228 transmission poles were inspected during this inspection cycle.

Infrared scans of and visual inspection of all transmission circuits were conducted and examined for any signs of bad connections, bad insulators and other potential areas of faulty or failing equipment.

Distribution

KUA planned for the inspection of a minimum of 2,000 distribution poles during 2009 in order to meet our 8-year inspection cycle. A total of 2,684 distribution poles inspections were completed. We are now approximately 1 ½ to 2 years ahead of schedule on our 8-year cycle.

Current practices include infrared scanning of all distribution feeders on an annual basis. During 2009 100% of KUA's feeders were inspected via infrared scanning. Visual inspections were also conducted during the pole inspection process.

KUA also plans for a more thorough visual inspections of the distribution system on a five-year cycle. Approximately 64 pole miles of overhead distribution circuits were targeted for inspection. Inspections via this method were performed on approximately 115 miles of distribution circuits for 2009. In addition, inspections were also performed on 699 pad-mounted transformers, 1,608 poles and 424 pad-mounted switches and junction boxes. These inspections are much more time consuming than inspection of overhead facilities.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

Transmission:

A total of 258 transmission poles were inspected during 2009. Of those, 13 (5%) failed inspection and classified as rejects. The average age of poles inspected was 30.2 years. Reasons for failure as follows:

Reason	Qty
Heart Rot	3
Exposed Pocket	3
Enclosed Pocket Above	2
Exposed Pocket Above	4
Carpenter Ants	1
TOTAL	13

Distribution:

A total of 94 (3.5%) of the 2,684 poles failed inspection and were classified as rejected. The average age of all poles inspected was 25.4 years. Reasons for failure as follows:

Reason	Qty
Shell Rot	71
Decay Pocket	10
Mechanical Damage Below	2
Enclosed Pocket Above	2
Decayed Top	2
Termites	1
Split Top	1
Shell Rot Above	1
Mechanical Damage Above	1
Heart Rot	1
Decay Pocket Above	1
Compression Wood	1
TOTAL	94

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

Transmission:

Priority Rejects: Scheduled for replacement with road project 2010.

Stubbed:	Qty	Ht.	Class
	1	65	1

Non-Priority Rejects: Scheduled for replacement in 2010.

Qty	Ht.	Class
4	70	H3
5	75	H3
1	75	1
1	80	H3
1	85	H1

Other remedial action included treatment of poles as follows:

Treatment	Qty
Treated with MP400-EXT	147
Treated with MITC-FUME	137
Treated with Hollow Heart CF	39

Distribution:

A total of 22 poles were replaced in 2009. Our inspection cycle for the year is performed in the last quarter of the calendar year. Therefore the inspection for calendar year 2009 has just recently been completed. Work orders have been issued for the remaining 72 poles failing inspection.

Other remedial action included treatment of poles as follows:

Treatment	Qty
Treated with MP400-EXT	2,079
Treated with MITC-FUME	437
Treated with Hollow Heart CF	744

5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

It is our opinion that a good vegetation management program starts with the planning and design of the transmission and distribution infrastructure. Careful attention is given to ensure adequate right-of-way widths. KUA only constructs new distribution circuits on front lots and the majority of new distribution lines are constructed with dedicated utility easements. This helps to minimize the planting of vegetation near electric infrastructure. Thirdly, local ordinances dictate that all new distribution construction be constructed underground. While KUA believes our vegetation management program is sufficient, we also recognize that vegetation management is an ongoing process and improvements can be made with the ability to gather and analyze data. The Public Utility Research Center held a vegetation management conference January 26-27, 2009. The FMEA, KUA has a copy of the report and will use the information to continually improve vegetation management practices.

Transmission

KUA has a written Transmission Vegetation Management Plan (TVMP) that details our policies, procedures, and practices for transmission line vegetation management. KUA has been audited by both the North American Electric Reliability Corporation (NERC) and the Florida Reliability Coordinating Council (FRCC) with regard to reliability standards. KUA's vegetation management plan was found to fully compliant with NERC reliability standards. KUA currently conducts a visual inspection of all transmission lines for potential vegetation problems on an annual basis. Any problem areas identified during this inspection are scheduled for remediation based on the severity of the problem. A vegetation work plan is prepared as a result of the inspection. The work plan indentifies the location, type and scheduled date for any required remediation. Inspection and remediation is planned each year in order to complete any required work prior to the next hurricane season.

Distribution

KUA guidelines currently target a vegetation inspection/trim cycle on the overhead distribution system on three-year cycle. In addition, we utilize our outage analysis system to categorize outages, including those attributable to vegetation. Analysis of this data is also performed to target potential problem areas.

Based on past experience on the KUA system we believe our vegetation management process and practices are adequate and very effective. This is partly evidenced by the fact that our total number vegetation related outages on the distribution system decreased by

21% for 2009 as compared to 2008. The number of vegetation related outages on our system has decreased from at total of 68 in 2004 to 27 in 2009.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

Transmission

During calendar year 2009, vegetation inspections were preformed on all transmission circuits. All required remediation identified during the inspection was also completed during the 2009.

Distribution

Distribution vegetation management planned for 2009 included inspection/remediation on 107 pole miles. Approximately 81 pole miles were actually completed. We are also in the process of modifying our vegetation management contract which would enable us to ensure meeting the planned pole miles goals for each year.

6. Storm Hardening Research

KUA is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

Utilities Administration
1900 2nd Avenue North · Lake Worth, Florida 33461 · Phone: 561 586 1665· Fax: 561 586 1702

Lake Worth Utility Report to the Florida Public Service Commission

Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

City of Lake Worth
Utilities Administration
1900 2nd Avenue North
Lake Worth, Florida 33461

Contact Person:

Rebecca M Mattey
Utilities Director
561-586-1665
E-Mail: rmattey@lakewortk.org

2) Number of Meters served in calendar year 2009 24,591

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Lake Worth comply with the National Electric Safety Code (ANSI C-2) [NESC] for electrical facilities constructed on or after February 1, 2008, the 2008 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Loading Standards

At this time, CLW facilities are not designed to be guided by the extreme loading standards on a system wide basis. However, CLW is guided by the extreme wind loading standard for new construction, major planned work including expansion, rebuild or relocation of existing facilities assigned on or after December 10, 2006.

Utilities Administration
1900 2nd Avenue North · Lake Worth, Florida 33461 · Phone: 561 586 1665 · Fax: 561 586 1708

c) **Flooding and Storm Surges**

Underground distribution construction practices at CLW require installation of dead front padmounted equipment in areas susceptible to flooding and storm surges. No special design or construction practices for overhead facilities have been deemed necessary.

d) **Safe and Efficient Access of New and Replacement Distribution Facilities**

Electrical construction standards, policies, guidelines, practices, and procedures at CLW provide for placement of new distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Policies for new construction require placement in front easements. Underground installations require placement in conduit. CLW practice is to maintain existing overhead laterals in rear lot easements.

e) **Attachments by Others**

Electrical construction standards, policies, and guidelines at CLW provide space for attachment of communication facilities by others. The communication utility is responsible for the design of communication facilities including meeting NESC clearance requirements and providing structure guying. CLW construction practice is to provide sufficient pole strength capacity such that NESC strength requirements are normally met after attachments by others.

4) **Facility Inspections**

CLW performs a visual inspection of all transmission facilities on an annual basis. All transmission poles are concrete or steel and no pole testing is performed.

CLW performs an inspection of all distribution facilities on an 8 year cycle. The pole inspection practices at CLW in 2009 was a continuation of section testing Pole tests consist of hammer sounding and pole prod penetration six (6) inches below ground line. Poles are replaced when pole prod penetration exceeds two (2) inches or there is evidence of severe pole top shell rot.

CLW pole inspection plan as follows:

- The CLW has appropriated funds and issued a request for proposal to enter into an agreement for pole inspection services to perform orderly inspections of our Transmission and Distribution facilities. Meanwhile in house testing will continue.
- Continue to test poles on an eight year cycle. Pole testing schedule will be coordinated with major reconstruction and/or voltage conversion projects.

Utilities Administration
1900 2nd Avenue North · Lake Worth, Florida 33461 · Phone: 561 586 1665· Fax: 561 586 1702

- Test by sounding wood poles with a hammer and excavate and test by pole prod penetration below ground line.

Utilities Administration
1900 2nd Avenue North · Lake Worth, Florida 33461 · Phone: 561 586 1665· Fax: 561 586 1702

- Maintain records of pole inspection plan documenting inspection schedule; type, class, and location of reject poles; and description of remediation taken.

5) Vegetation Management

CLW has an on-going management plan and has entered into a line clearance contract with Davey Tree Experts to preformed vegetation management on a system wide two (2) year cycle. Trees are trimmed to obtain maximum clearance considering rate of tree growth, symmetry, tree health, and the rights and interests of property owners and the public. A minimum clearance of ten (10) feet in any direction from CLW conductors is obtained. The contractor attempts to obtain permission from property owners to remove trees described in the following categories:

- Small trees which the property owner does not value, but which will require trimming in future years.
- Dead or defective trees which are a hazard to CLW conductors.
- Trees that are unsightly as a result of the necessary trimming and that have no chance for future development.
- Fast growing soft-wooded or weed trees located under or dangerously close to CLW conductors.
- Trees that are non native and invasive and subject to removal as declared by the Palm Beach County Resources Department.

6. Storm Hardening Research

CLW is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

LAKELAND ELECTRIC
Your Essential Link to a Quality Life

SERVICE

10 FEB 26 10: 21

ECONOMIC REGULATION

February 24, 2010

Marshall Willis, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Dear Mr. Willis:

Enclosed is Lakeland Electric's Storm Hardening Report for 2009. Please let me know if any additional information is required.

Sincerely,

Alan W. Shaffer
Assistant General Manager – Delivery
Lakeland Electric
(863) 834-6505

10 FEB 26 1:01

ECONOMIC REGULATION

501 E. Lemon St. ✦ Lakeland, Florida 33801
Phone: 863.834.6300 ✦ Fax: 863.834.6344

Lakeland Electric
Storm Hardening Report to the Florida Public Service Commission
Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) **Introduction**

   a) **Name of city/utility**
      City of Lakeland Department of Electric Utilities / Lakeland Electric

   b) **Address, street, city, zip**
      501 East Lemon Street
      Lakeland, FL 33801

   c) **Contact information: Name, title, phone, fax, email**
      Alan Shaffer
      Assistant General Manager -- Delivery
      Phone: (863) 834-6505
      Fax: (863) 834-6373
      Alan.Shaffer@lakelandelectric.com

2) **Number of meters served in calendar year 2009**
   112,000

3) **Standards of Construction**

   a) **National Electric Safety Code Compliance**

   Construction standards, policies, guidelines, practices, and procedures at the Lakeland Electric (LE) comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007 are governed by the edition of the NESC in effect at the time of the facility's initial construction.

   b) **Extreme Wind Loading Standards**

   Construction standards, policies, guidelines, practices, and procedures at Lakeland Electric have considered the extreme wind loading standards specified by Figure 250-2(d) of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares. LE designs and builds to meet or exceed the extreme wind loading strength requirements for all pole heights 60 feet and above and meet or exceed Grade B Construction below this height.

   c) **Flooding and Storm Surges**

   The LE service territory is not a coastal area and, therefore, not subject to storm surges or other wide-spread significant flooding.

   d) **Safe and Efficient Access of New and Replacement Distribution Facilities**

   Electrical construction standards, policies, guidelines, practices, and procedures at Lakeland Electric provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. In all locations possible and with rare exception facilities are immediately adjacent to public roadways. Rear lot line construction away from roads and alleyways was discontinued over 25 years ago. Where significant reconstruction of inaccessible line sections may occur, they are considered for relocation to the roadway.

e) Attachments by Others

Lakeland Electric's engineering and construction standards account for the influence of potential telecommunications attachments for pole strength and height in maintaining compliance to the applicable NESC standards. Additionally, previous agreements and the current ordinance governing pole attachments with external entities has maintained requirements that those making the licensed attachments comply with NESC requirements in their design, construction, operation, and maintenance activities. The pole strength calculations completed during the pole inspections include all attachments in the assessment.

4. Facility Inspections

a) **Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.**

Lakeland Electric initiated a contract in 2007 to inspect all wood poles on an eight year cycle using visual and the sound and bore techniques with ground line excavation and strength calculations that include all pole attachments. Additionally, LE personnel inspect for T&D facility damage throughout the service territory during the course of normal travel, operations work, and in response to outages. LE also uses concrete and tubular steel poles which receive a visual inspection only.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2009.

Documented pole inspection results	Distribution	Transmission	Total
Poles planned for inspection	7500	147	7647
Percentage planned	12.5 %	12.5%	12.5%
Poles inspected	7821	161	7982
Percentage inspected	13.0%	13.7%	13.0%

The number and percentage of poles planned for inspection are the total in each category divided by the eight year cycle. Because the inspections are done by geographical region the actual number of poles completed will vary by the percentage of distribution poles to transmission poles in the region but the total number of inspections should meet or exceed the combined totals. In 2009, a total of 7647 poles were planned for inspection and this was exceeded with 7982 actual inspections.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2009 and the reason for the failure.

5 transmission poles or 3.1% of those inspected failed to meet minimum strength requirements due to decay. 397 distribution poles or 5.0% of those inspected failed to meet minimum strength requirements due to decay.

d) **Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2009, including a description of the remediation taken.**

All poles recommended for strengthening in the inspections during the last half of 2008 were assessed for appropriate action. 38 distribution poles were reinforced with struts by May of 2009 and 177 distribution poles were otherwise replaced, repaired, or removed by the end of 2009. 46 of the poles were deferred into this calendar year for repair or replacement. There were no programmed transmission pole replacements in 2009 since no transmission pole failed inspection in 2008.

5. Vegetation Management

a) **Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.**

Lakeland Electric's vegetation management program entails circuit based maintenance provided by contractual services. Species specific distance trimming and directional pruning techniques are used as guidelines to establish a three year trimming cycle on transmission circuits and a three and one-half year cycle on distribution circuits. Vegetation interference that exceeds the anticipated maintenance cycle on feeder circuits is trimmed in between cycles to enhance reliability. Trees less than twelve inches in diameter that will require future maintenance are removed with property owner permission and hazardous trees within ten feet of high voltage power lines are topped to a safe height Lakeland Electric provides tree planting guides with set back recommendations by tree species that coincide with city and county land development ordinances. Lakeland Electric finds these practices sufficient because the anticipated tree growth will generally not exceed the established 3.5 year cycle length and there are budgetary allowances for priority situations.

b) **Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2009.**

2009 Distribution* Goal: 300 Miles	Completed: 305 Miles
2009 Transmission Goal: 40 Miles	Completed: 42

*Distribution maintenance includes secondary voltage lines and service drops not included in the stated mileage.

6. Storm Hardening Research

Lakeland Electric is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

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Florida Public Service Commission
Division of SSC

March 1, 2010

Mr. Tim Devlin, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Subject: Storm Hardening Report for Rule 25-6.0343, F.A.C.

Dear Mr. Devlin:

Enclosed is subject report for calendar year 2008. I am available to respond to any questions. You can reach me at (352) 728-9834 or Paul.Kalv@leesburgflorida.gov.

Sincerely,

Paul D. Kalv

Paul D. Kalv
Director

Encl.

LEESBURG
The Lakefront City

Post Office Box 490630 • Leesburg, Florida 34749-0630
352/728-9700 • Fax 352/728-9734 • TDD 352/728-4138

City of Leesburg
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

a) Name of city/utility: **City of Leesburg (Leesburg)**

b) Address, street, city, zip: **2010 Griffin Road, Leesburg, FL 34748**

c) Contact information: **Paul D. Kalv, Director**
Voice: 352.728.9834
Fax: 352.728.9809
E-mail: Paul.Kalv@leesburgflorida.gov

2) Number of meters served in calendar year 2009

Leesburg's electric utility serves approximately 23,000 customer meters.

3) Standards of Construction

a) National Electric Safety Code Compliance

Leesburg construction standards, policies, guidelines, practices, and procedures comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

Leesburg construction standards, policies, guidelines, practices, and procedures are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares. These standards require structures to withstand winds up to 100 mph within the Leesburg electric service territory.

Leesburg is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

c) Flooding and Storm Surges

Leesburg is approximately 60 miles inland from the Atlantic and Gulf coasts and is not subject to major flooding or storm surge. Leesburg construction standards, policies, guidelines, practices, and procedures do not address the effects of flooding and storm surges on underground distribution facilities or supporting overhead facilities.

Leesburg is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of underground facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Leesburg construction standards, policies, guidelines, practices, and procedures provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. New overhead and underground facilities for residential and commercial installations are placed in locations that are accessible by crews and vehicles to ensure proper maintenance and repair can be performed expeditiously and safely. Some aged rear lot line overhead facilities exist in scattered neighborhoods, but these facilities are generally relocated to the front lot line to the greatest extent possible when converted to underground. All feeder main lines have already been relocated to front lot lines.

e) Attachments by Others

Leesburg electrical construction standards, policies, guidelines, practices, and procedures include written safety, pole wind loading capacity, and engineering standards for attachment by others to Leesburg distribution poles. Leesburg requires permits for all foreign utility attachments to Leesburg owned overhead facilities. This permit requires the entity requesting to attach to a Leesburg pole to provide the design calculations to insure the addition of their attachment does not violate the requirements of the NESC in effect at the time of the request.

Foreign utility attachments are inspected on an 8 year cycle.

4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

Leesburg does not own or operate transmission facilities. Leesburg contracts general pole inspection and sound and bore inspection with excavation on wood poles using the NESC standards for decay and reject status.

All poles (wood and concrete – City owned and Foreign owned) to which Leesburg electric facilities are attached, are inspected by the contractor and all wood poles are treated at ground level as necessary to preserve the strength of the poles. Field notes and reports of other wood pole defects (top split, woodpecker holes, etc.) are prepared by the contractor and delivered to the City weekly during the inspection period. Appropriate action is taken by Leesburg to repair or replace the wood poles. Leesburg plans an 8 year inspection cycle. Leesburg electric facilities are attached to approximately 16,500 poles of which approximately 10,200 are wood poles and approximately 6,300 are concrete poles. Distribution pole inspections commenced during 2007.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2009.

During the Calendar Year 2009, an additional 3,224 poles were inspected. The utility's pole inspection budget for FY 2007 was spent during August and September 2007 and the FY 2008 budget was spent during November and December 2007 to take advantage of contractor crew availability. The inspections were included in the Leesburg report for Calendar Year 2007. During this 2007 period 6,200 poles were inspected which is almost 38% of the total poles to which electric facilities are attached.

Pole inspections for the FY 2009 budget were performed during the period from July1, 2009 through September 19, 2009. During this period a total of 3,224 distribution poles were inspected. These 3,224 poles together with the 6,200 poles inspected during 2007 represent over 57% of the total poles to which electric facilities are attached. A copy of the Project Report from Osmose Utilities Services, Inc. is included with this report.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2009 and the reason for the failure.

Service Provided	2007 Poles	2009 Poles	2010 Poles	Total Poles	% Total Inspected
Poles treated with COP-R-Plastic II - Passed	2,365			2,365	25.0%
Poles treated with MP400-EXT - Passed		1,243		1,243	13.2%
Poles treated with MITC-FUME	1,293	670		1,963	20.8%
Poles treated with Hollow Heart CF	45	87		132	1.4%
No treatment	2,517	1,224		3,741	39.6%
TOTAL	6,220	3,224		9,444	100.0%
Priority Rejects requiring immediate attention	3	6		9	0.1%
Poles that failed minimum strength and are replaced	163	84		244	2.6%
Other conditions-Split top, Woodpecker Holes, etc.	1,346	63		1,409	14.9%

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2009, including a description of the remediation taken.

Pole Type	Distribution Pole Class	Remediation	Number Poles	% Inspected Poles
Wood	Various	Replaced	84	2.6%

5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Leesburg maintains a 4-year trim cycle for feeder and lateral circuits. Problem trees are trimmed or removed as identified. Forty-five vegetation outages caused 431,316 customer minutes interrupted during calendar year 2009. This is a 32% increase in the number of vegetation outages and a more than doubling increase in the customer minutes interrupted. One large oak tree caused 199,408 customer minutes interrupted.

2 Outage (4%) caused 245,412 CMI (57%)
43 Outages (96%) caused 185,904 CMI (43%)

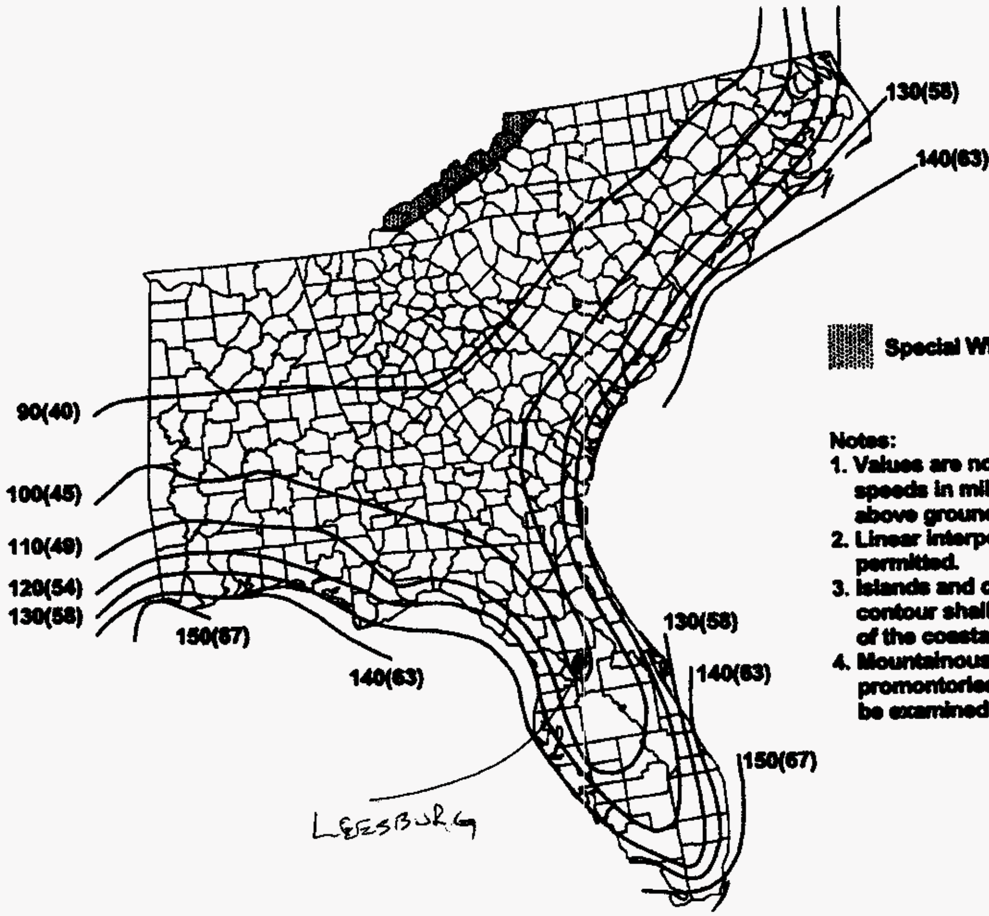
d) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2009.

Vegetation management activities were completed as scheduled during calendar year 2009. An additional Tree Crew was added as planned during April 2008. The Public Utility Research Center has held vegetation management workshops during March 2007 and January 2009. The utility contractor and utility staff attended both workshops. Through FMEA, the City of Leesburg has a copy of the report and is using the information to continually improve vegetation management practices.

6. Storm Hardening Research

The City of Leesburg is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext.1, or bmoline@publicpower.com.

Fig 250-2(d)
Eastern Gulf of Mexico and Southeastern US Hurricane Coastline



Special Wind Region

Notes:

1. Values are nominal design 3-second gust wind speeds in miles per hour (m/s) at 33 ft (10 m) above ground for Exposure C category.
2. Linear interpolation between wind contours is permitted.
3. Islands and coastal areas outside the last contour shall use the last wind speed contour of the coastal area.
4. Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.

City of Moore Haven
Storm Hardening Report to the Florida Public Service Commission
Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) **Introduction**

City of Moore Haven
P.O. Box 399 Moore Haven, FL 33471
Frank Thomas, City Manager
Phone (863) 946-0711
Fax (863) 946-2988
E-mail: fthomas@moorehaven.net

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Division of SSC

2) **Number of meters served in calendar year 2009:**

For calendar year 2009 in the month of December, the City of Moore Haven served 815 residential customers and 152 commercial customers for a total of 967 customers.

3) **Standards of Construction:**

The City of Moore Haven does not officially list standards for our distribution system. We use consulting engineers that follow all current applicable standards in construction of our electric distribution system. Any new large construction project is designed by a Florida registered electrical engineer on a consultant basis. Small projects are designed with assistance from Glades Electric Cooperative engineers.

a) National Electric Safety Code Compliance:
The City of Moore Haven uses consulting engineers; all current NESC requirements are incorporated in to designs for new construction, major rebuilds, or targeted critical infrastructure facilities.

b) Extreme Wind Loading Standards:
The City of Moore Haven uses consulting engineers; all current Extreme Wind Loading Standards are incorporated in to designs for new construction, major rebuilds, or targeted critical infrastructure facilities. At this time the City of Moore Haven facilities are not designed to be guided by the extreme loading standards on a system wide basis. The City is participating in the Public Utility Research Center's granular wind research study through the Florida Municipal Electric Association. We continue to self-audit and evaluate our system to determine immediate needs for system upgrades and hardening in specific areas. The City has performed many "storm hardening" activities during calendar year 2009 such as relocating services from easements to road right-of-ways for easier access, upgrading guy systems, inspecting sag of power lines and resagging a s needed, patching and/or replacing power poles, and total tree removal from power lines.

c) Flooding and Storm Surges:
The City of Moore Haven is a non-coastal community, therefore, storm surge or flooding is not a major issue. New construction or major rebuilds that have the possibility of flooding are factored in to the design.

d) Safe and Efficient Access of New and Replacement Distribution Facilities:
Electrical construction guidelines, practices, and procedures at the City of Moore Haven provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed, all facilities are installed so they are accessible by crews and vehicles to ensure proper maintenance/repair can be performed expeditiously and safely as possible. The City decides on a case by case basis whether existing facilities need to be relocated.

e) Attachment by others:
The pole attachment agreement between the City and third-party attachers includes language which specifies that the attacher, not the City, has the burden of assessing the impact on pole strength and safety before they attach to the pole. This language will be negotiated with the attacher.

4. Facility Inspections

a) The City of Moore Haven continuously inspects distribution lines, poles and structures. As discrepancies are located the electric crew, consisting of two linemen, plan and perform repairs. We perform a visual inspection of all poles within every year. We also perform physical inspections of poles using the sound method. The City inspected and upgraded the system where and when needed. The City has inspected all of the poles and applied pole patch to the top above the crossarms where needed and replaced the poles as needed. The City has also straightened and restabilized leaning poles.

b) The City of Moore Haven continuously inspected lines, poles, and structures during 2009. The City is one square mile and easily inspected during routine activities.

c) The City of Moore Haven began upgrading our 3-phase poles by replacing three (3) poles. The City has no transmission lines or poles.

d) The City of Moore Haven has constantly worked on the rear-of secondary, making them more accessible to the crew. The City has approximately 410 poles in the distribution system and street lighting.

5. Vegetation Management

a) The City of Moore Haven is continuously trimming trees located in easements and on right-of-ways. 100% of the power distribution system is trimmed every year. The City is monitoring all new construction on private property and communicating with owners the importance of locating vegetation away from all utilities. The City of Moore Haven is a small town of one square mile. Most residents are willing to comply with requests of the City concerning vegetation near utilities.

b) The City of Moore Haven expended approximately 20% of our Electric Dept. Resources to vegetation management. All vegetation management is performed in-house.

6. Storm Hardening Research

The City of Moore Haven is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

CITY OF
MOUNT
DORA

CELEBRATING 100 YEARS

City Hall
510 N. Baker St.
Mount Dora, FL 32757

Office of the City Manager
352-735-7126
Fax: 352-735-4801

Finance Department
352-735-7118
Fax: 352-735-1406

Human Resources
352-735-7106
Fax: 352-735-9457

Planning and Development
352-735-7112
Fax: 352-735-7191

City Hall Annex
900 N. Donnelly St.
Mount Dora, FL 32757

Parks and Recreation
352-735-7183
Fax: 352-735-3681

Public Safety Complex
1300 N. Donnelly St.
Mount Dora, FL 32757

Police Department
352-735-7130
Fax: 352-383-4623

Fire Department
352-735-7140
Fax: 352-383-0881

Public Works Complex
1250 N. Highland St.
Mount Dora, FL 32757
352-735-7151
Alt. Tel: 352-735-7105
Fax: 352-735-1539
Alt. Fax: 352-735-2892

W. T. Bland Public Library
1995 N. Donnelly St.
Mount Dora, FL 32757
352-735-7180
Fax: 352-735-0074

Website:
www.cityofmountdora.com

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ECONOMIC REGULATION

VIA US MAIL

February 19, 2010

Marshall Willis, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

RE: City of Mount Dora Storm Hardening Report for Rule 25-6.0343 F.A.C

Dear Mr. Willis:

Enclosed is the City of Mount Dora Storm Hardening Report pursuant to Rule 25-6.0343 F.A.C. for Calendar Year 2009.

Please contact me if you have any questions.

Very truly yours,

Charles F. Revell

Charles F. Revell
Electric Utility Manager

Phone: (352) 735-7155, x1802
Email: revellc@cityofmountdora.com

City of Mount Dora
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2009

1) Introduction

a) Name of city/utility

City of Mount Dora

b) Address, street, city, zip

1250 North Highland Street
Mount Dora, FL 32757

c) Contact information: Name, title, phone, fax, email

Mr. Charles F. Revell
Electric Utility Manager
Phone: (352) 735-7155, ex 1802
Fax: (352) 735-1539
Email: revellc@cityofmountdora.com

2) Number of customers served in calendar year 2009

Approximately 5,538 Customers

3) Standards of Construction

a) National Electric Safety Code Compliance

The City of Mount Dora (City) does not currently have written documentation that its construction standards, policies, guidelines, practices, and procedures comply with the various editions of the National Electrical Safety Code (NESC) that were in effect during the construction of the City's distribution system. However, the City has replaced many older overhead distribution facilities during the last ten years using new wood and concrete poles, new insulators, and other new equipment. For new construction, the City generally uses concrete poles for its main distribution feeders. While no formal analysis of construction standards has yet been made, the City's distribution system held up well during the hurricanes of 2004 and Tropical Storm Fay in 2008. These storms caused relatively minor damage to the City's electric distribution system.

The City's five year Capital Improvement Program includes a Wood Pole Replacement Program that is designed to replace older wood poles on the City's main distribution feeders with concrete poles.

As a first step in evaluating compliance with the NESC, in 2008 the City began annual field inspections of its overhead distribution facilities. In 2010 or 2011, subject to budget constraints, the City plans on retaining an engineering firm to conduct an engineering review of its construction standards to insure that future construction will comply with the 2007 NESC.

b) Extreme Wind Loading Standards

Per Figure 250-2(d) of the 2002 edition of the NESC, the extreme wind loading standard for the City is approximately 102 MPH, using linear interpolation between wind contours as permitted by the NESC. The City's central Florida location is very close to the 100 MPH wind contour line.

At the present time, the City does not have written documentation that its construction standards, policies, guidelines, practices, and procedures meet the extreme wind loading standard for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares. However, the City has replaced many older overhead distribution facilities during the last ten years using new wood and concrete poles, new insulators, and other new equipment. For new construction, the City generally uses concrete poles for its main distribution feeders and requires that all new electrical services be underground. In addition, the City installs underground distribution systems for all new subdivisions or similar large projects. As mentioned earlier, the City's distribution system held up well during the hurricanes of 2004 and Tropical Storm Fay in 2008.

The City's five year Capital Improvement Program includes a Wood Pole Replacement Program that is designed to replace older wood poles with concrete poles for the City's main distribution feeders.

In 2008 the City developed a formalized annual field inspection program for its distribution lines, poles, and structures to assist in evaluating compliance with the wind loading standards of the 2002 NESC. In 2010 or 2011, subject to budget constraints, the City plans to retain an engineering firm to conduct an engineering review of its construction standards to insure that future construction will comply with the extreme wind loading standards of the 2002 NESC.

The City is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association. The City will continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in specific areas. In addition, the City will monitor the results of this research to determine the most appropriate response for system upgrades and hardening.

c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at the City address the effects of flooding on underground distribution facilities and supporting overhead facilities. Because of the hilly terrain around Mount Dora, flooding of low-lying areas is not generally a problem.

The City is not subject to storm surges because of its inland location.

The City is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association. The City will continue to evaluate and address the effects of flooding but will wait for the results of this research to justify the effort and cost of converting overhead distribution facilities to underground.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed, all facilities are installed so that City crews have adequate access to perform maintenance/repairs expeditiously and safely. Most distribution facilities are on public streets which are easily accessible. The City no longer allows back-lot line utility services for new developments. The City requires that all new distribution facilities be near a street or within a utility easement.

e) Attachments by Others

The City does not currently have written safety, pole reliability, pole loading capacity, or engineering standards for attachments by others to the City's distribution poles. However, knowledgeable field personnel conduct an annual inspection of all of the City's electric facilities to identify obviously overloaded poles. In addition, the City has not experienced any failures of poles due to overloading by pole attachments of other entities. In 2010 or 2011, subject to budget constraints, the City plans to retain an engineering firm to conduct an engineering review of its construction standards with respect to distribution pole loading capacity for attachments by others.

4) Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

The City electric system consists of distribution lines, poles, and structures – it owns no transmission facilities. Since its service territory is relatively small, the Electric Division has been able to make visual inspections of its six distribution feeders on an annual basis. Wood poles are visually inspected for cracks and a sounding technique is used to determine potential wood rot. Poles that appear to have wood rot are replaced when they are found, rather than being further inspected below ground level. The City has found this inspection process to result in the ability of its utility system to withstand storm events.

In 2008 the City developed and initiated a comprehensive field inspection program for its distribution lines, poles, and structures. The program consists of an annual field inspection of all six of the City's six distribution feeders documented with a field report that identifies the following situations:

1. Tree clearance
2. Moss/vines
3. Low-hanging wires or services
4. Loose or missing guy wire
5. Damaged or missing guy guards
6. Rotten or damaged pole
7. Missing or damaged animal guards
8. Broken pins or insulators
9. Blown lightning arrestors
10. Damaged switch or jumpers
11. Damaged capacitor bank
12. Damaged pole attachment

Once the field inspection reports have been completed, the City goes back to each pole and makes the identified repairs. The City typically schedules the annual field inspections during early summer so that the majority of repairs can be completed before the beginning of hurricane season. If a third-party pole attachment appears damaged or does not meet NESC clearance requirements, the City notifies the respective party in writing.

The City also makes additional facility inspections before the arrival of adverse weather events, such as hurricanes and tropical storms. The pre-storm inspections utilize the same inspection form as the annual field inspection.

Some of the City's distribution lines are attached to 69 kV wood transmission poles owned by Progress Energy. Any observed problems with the transmission poles are reported directly to Progress Energy.

The City is currently utilizing hard-copy maps to manage the facilities of its electric distribution system, including field inspections. The City started the implementation of GIS mapping system for the electric distribution system in 2009. The long-term goal is to utilize the GIS system to map and manage all of the City's distribution facilities including wood and concrete poles, attached hardware, pole attachments by other entities, and underground electrical facilities.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2009.

The City completed 5 distribution circuit inspections in 2009 to identify wood poles that should be replaced under its Wood Pole Inspection Program. The City completed 100% of these planned inspections for this program.

In 2009, the City made 3 inspections of its antique-style street lights and made repairs as necessary. The City completed 100% of the planned inspections for the antique lights.

The City did not complete the detailed field inspections of all of its six distribution feeders until early 2010. The statistics included in this report are derived from this recently-completed inspection.

The City owns no transmission facilities.

b) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2009 and the reason for the failure.

As noted above, the City completed a comprehensive field inspection of all six of its distribution feeders in early 2010. The table below summarizes the numbers, percentages, and reasons that distribution poles failed the annual field inspection:

Circuit	Tree Trimming Needed	Remove Moss/Vine	Low-hanging Wires	Loose/Missing Guy	Damaged/Missing Guy Guard	Rotten/Damaged Pole	Missing/Damaged Squirrel Guard	Broken Pins/Insulators	Blown Lightning Arrestor	Damaged Switch/Jumpers	Damaged Capacitor Bank	Damaged Pole Attachment	Circuit Totals
M593	-	-	-	-	1	-	-	-	-	-	-	-	1
Percent of Total	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
M594	-	-	-	-	1	-	-	-	-	-	-	-	1
Percent of Total	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
M595	3	-	1	-	-	-	1	-	1	-	-	1	7
Percent of Total	42.9%	0.0%	14.3%	0.0%	0.0%	0.0%	14.3%	0.0%	14.3%	0.0%	0.0%	14.3%	100.0%
M596	5	-	-	-	-	11	-	-	-	-	-	-	16
Percent of Total	31.3%	0.0%	0.0%	0.0%	0.0%	68.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
M597	1	1	-	1	-	8	-	-	1	-	-	-	12
Percent of Total	8.3%	8.3%	0.0%	8.3%	0.0%	66.7%	0.0%	0.0%	8.3%	0.0%	0.0%	0.0%	100.0%
M598	-	-	-	2	1	-	-	-	-	-	-	1	4
Percent of Total	0.0%	0.0%	0.0%	50.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%	100.0%
All Circuits	9	1	1	3	3	19	1	-	2	-	-	2	41
Percent of Total	22.0%	2.4%	2.4%	7.3%	7.3%	46.3%	2.4%	0.0%	4.9%	0.0%	0.0%	4.9%	100.0%

The City owns no transmission facilities.

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2009, including a description of the remediation taken.

The City remediated all of the issues identified in the annual field inspection shown above and plans on replacing the identified rotten or damaged wood poles in 2010. Based on the inspections conducted in 2009 for the Wood Pole Replacement program, the City replaced 69 wooden poles with concrete poles, or 2.5% of total poles. The following table lists all wood poles that were replaced with concrete poles in 2009:

	Number of Poles at 1/1/09		Wood Pole Replacements	Number of Poles at 12/31/09	
Description	Count	% of Total Poles	Count	Count	% of Total Poles
Wood Poles					
25 foot	93	3.3%		93	3.3%
30 foot	778	28.0%	(17)	761	27.4%
35 foot	30	1.1%		30	1.1%
40 foot	534	19.2%	(21)	513	18.5%
45 foot	580	20.9%	(31)	549	19.7%
50 foot	11	0.4%		11	0.4%
Total Wood Poles	2,026	72.9%	(69)	1,957	70.4%
Concrete Poles					
Existing @ 1/1/09	754	27.1%		754	27.1%
Wood Pole Replacements	-	-	69	69	2.5%
New Circuits	-	-			0.0%
Total Concrete Poles	754	27.1%	69	823	29.6%
Total Poles:	2,780	100.0%		2,780	100.0%

The City owns no transmission facilities.

5) Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City Electric Division trims trees on a 12 month cycle using an outside contractor with a two-man crew working 40 hours per week. This contractor focuses exclusively on clearing vegetation that could adversely impact the reliability of the

City's electric distribution system. In addition to the contractor crew, the City employs one two-man crew that is continuously trimming trees and reducing vegetative growth throughout other parts of the City. In some situations, the City crew assists the contractor crew in trimming or removing large trees.

The City routinely removes limbs from trees located outside road right-of-ways or easements that could create clearance problems for its overhead distribution circuits. The City has also removed entire trees in such locations if those trees threaten overhead distribution circuits (usually dead trees in danger of falling).

The City believes that its vegetation management practices result in high reliability because it trims trees on a 12 month cycle, which is much more frequent than the practices of most of Florida's electric utilities.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2009.

The City Electric Division trimmed trees on a 12 month cycle using an outside contractor with a two-man crew working 40 hours per week. The City also removed limbs from trees located outside road right-of-ways or easements that could create clearance problems for its overhead distribution circuits.

The City owns no transmission facilities.

The Public Utility Research Center held a vegetation management conference January 26-27, 2009. Through FMEA, the City has a copy of the report and will use the information to continually improve vegetation management practices.

6. Storm Hardening Research

The City is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224 - 3314, ext.1, or bmoline@publicpower.com.

UTILITIES COMMISSION,
CITY OF NEW SMYRNA BEACH, FLORIDA
200 Canal Street
New Smyrna Beach, Florida 32168
386-427-1361

Mailing Address:
Post Office Box 100
New Smyrna Beach, Florida 32170

Mr. Tim Devlin, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

February 25, 2010

Dear Mr. Devlin:

In compliance with requirements, enclosed please find our Storm Hardening Report for Rule 25-6.0343, F.A.C.

Should you have any questions, please feel free to contact us at the contact information enclosed in the report.

Thank you,

Miguel Rodriguez, Electrical Engineer
Utilities Commission, City of New Smyrna Beach, Florida
200 Canal Street
New Smyrna Beach, Florida 32168

cc: Paul Vickery, PSC✓
Barry Moline, FMEA
Robert Rodi, UCNSB
Ray Mitchum, UCNSB
Jim White, UCNSB

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"Connecting You With Quality"

Utilities Commission, City of New Smyrna Beach
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2009

1) Introduction

a) Name of city/utility
Utilities Commission, City of New Smyrna Beach

b) Address, street, city, zip
200 Canal Street,
New Smyrna Beach, Florida 32168

c) Contact information:

Ray Mitchum, Director Electric Operations
Office: (386) 424-3162
Fax: (386) 423-7133
mailto:rmitchum@ucnsb.org

Miguel Rodriguez, Elect.Engineer
Office: (386) 424-3029
Fax: (386) 409-4720
mailto:mrodriguez@ucnsb.org

2) Number of customers served in calendar year 2009

The Utilities Commission City of New Smyrna Beach served an average of 24,927 customers during 2009 calendar year.

3) Standards of Construction

a) National Electric Safety Code Compliance

The Utilities Commission City of New Smyrna Beach construction standards, policies, guidelines, practices, and procedures comply with the National Electrical Safety Code (ANSI C-2) (NESC)) applicable at the time of facilities installation. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction. Electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies.

b) Extreme Wind Loading Standards

The Utilities Commission City of New Smyrna Beach construction standards, policies, guidelines, practices, and procedures are guided by the extreme wind loading standards specified by Figure 250-2(d) of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006.

The Utilities Commission City of New Smyrna Beach is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

c) Flooding and Storm Surges

The Utilities Commission City of New Smyrna Beach construction standards, policies, guidelines, practices, and procedures are being studied to determine the effects of hardening for flooding and storm surges will have to the ratepayers and facilities installation practices.

We only install stainless steel dead front pad mounted transformers in our system. Additionally, all major planned work, including expansion, rebuild, relocation or replacement of existing pad mounted transformer installations are being upgraded to our standard of dead front stainless steel transformers. We are installing stainless steel dead front submersible pad mounted switchgear where economically feasible.

The Utilities Commission City of New Smyrna Beach is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of underground facilities in preventing storm damages and outages through the Florida Municipal Electric Association.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

The Utilities Commission City of New Smyrna Beach construction standards, policies, guidelines, practices, and procedures provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

Whenever possible, easements are secured from private property owners for the installation of required new and/or relocated facilities. If easements are not secured, facilities are installed in the public right of ways.

e) Attachments by Others

The Utilities Commission City of New Smyrna Beach has existing pole attachment agreements with joint users. We have enforced the 2007 NESC guidelines to proposed new attachments requests recently received. We have performed stress pole calculations and if attachments are found to potentially overload the existing facilities, facilities are upgraded or the project reengineered.

We have revised our attachment agreements to include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric distribution poles. Normally, joint use attachments are not permitted on our transmission poles.

4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

The Utilities Commission, City of New Smyrna Beach is contracted with Osmose Utilities Services to inspect all transmission and distribution poles and structures as part of our 8 year inspection program. An average of 12.5% of transmission and distribution facilities will be inspected annually.

b) Number and percentage of transmission and distribution inspections planned and completed for 2009.

The Utilities Commission, City of New Smyrna Beach has approximately 420 transmission poles. During FY 2009 Osmose Utilities Services inspected 76 transmission structures, approximately 18% of our transmission system.

The Utilities Commission, City of New Smyrna Beach has approximately 12,000 distribution poles. During FY 2009 Osmose Utilities Services inspected 1560 distribution poles, approximately 13% of our distribution system.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

Transmission: Please see Attachment A.

Distribution: Please see Attachment B.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

Transmission: Please see Attachment A.

Distribution: Please see Attachment B.

5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The Utilities Commission, City of New Smyrna Beach trims trees on an ongoing basis. We currently have two crews continuously trimming trees and reducing vegetative growth throughout the system. Each crew works 40 hours a week. We maintain one crew trimming main feeders and the other crew performing "hot spot" trimming as required.

Our tree trimming records indicate that during FY 2009 we trimmed approximately 15% of our distribution system. Similar to the previous year, we performed clear cutting on approximately 20% of our transmission lines. As in previous years, we continued our practice of mowing our transmission lines on a yearly basis.

The Utilities Commission, City of New Smyrna Beach continues working with the City of New Smyrna Beach and Volusia County to increase tree trimming and clearing along public right of ways.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

See response to Item 5a.

6. Storm Hardening Research

The Utilities Commission, City of New Smyrna Beach is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

Attachment B

Distribution Poles

Inspected – 1560 – 13% of Total Distribution Poles

Rejected – 215 – 14% of Inspected Poles

Rejected Due to Decay – 197

30' Class 6	30' Class 5	35' Class 5	35' Class 4	40' Class 5	40' Class 4	45' Class 4	60' Class 1
25	36	23	10	19	74	9	1

Rejected Due to Split Tops - 8

30' Class 6	30' Class 5	40' Class 5	40' Class 4
2	2	1	3

Rejected Due to Woodpecker Damage - 10

40' Class 4	45' Class 4	55' Class 2	60' Class 2
6	1	2	1

Replaced Poles

30' Class 6	30' Class 5	35' Class 5	35' Class 4	40' Class 5	40' Class 4	45'Class 4
25	36	10	5	9	29	4

Poles Restored With C Truss

35' Class 5	35' Class 4	40' Class 5	40' Class 4	45' Class 4	60' Class 1
13	5	10	45	5	1

Repaired Split Top Poles

30' Class 6	30' Class 5	40' Class 5	40' Class 4
2	2	3	1

Woodpecker Damaged Poles Restored With ICORP Pole Restore

40' Class 4	45' Class 4	55' Class 2	60' Class 2
6	1	2	1

Attachment A

Transmission Poles

Inspected – 76 – 18% of Total Transmission Poles

Rejected – 7 – 10% of Inspected Poles

70' Class 2	75' Class 1	80' Class 2	85' Class 2
2	2	2	1

Rejected Due to Decay – 3

70' Class 2	85' Class 2
2	1

Restored with C Truss – 3

Rejected Due to Woodpecker Damage – 4

75' Class 1	80' Class 2
2	2

Restored with ICORP Pole Restore – 2

Two 80' poles that were damaged by woodpeckers are scheduled to be replaced in spring of 2010.

City of Newberry

Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2009

1) Introduction

a) City of Newberry

b) P. O. Box 369, Newberry, Fl. 32669

c) Contact information: Blaine Suggs, Utilities Director

Phone: (352) 472-1537 Fax: (352) 472-1799
Email: blaine.suggs@ci.newberry.fl.us

2) Number of customers served in calendar year 2009

1,513

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Newberry comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the City of Newberry, meet the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after January 1, 2007; and 3) targeted critical infrastructure facilities and major thoroughfares.

The City of Newberry is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

c) Flooding and Storm Surges

NOT Applicable, The City of Newberry is an inland Community located 45 miles from a coastal area.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

All New Electrical Construction and Replacement Distribution Facilities within the City of Newberry are constructed along Road Right of Ways or on accessible easements. No construction is allowed on rear lot lines within Residential Subdivisions.

e) Attachments by Others

We have established pole loading rates for our system which limits 3rd party attachers.

4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

All distribution poles are inspected on a Three (3) year cycle by City of Newberry Personnel. Poles are inspected at ground line for deterioration, entire upper part of the pole for cracks and soundness of upper part of pole.

b) Number and percentage of transmission and distribution inspections planned and completed for 2009.

All 1,007 Distribution Poles were inspected in 2009 and will be inspected again in 2012 per cycle stated in 4 (a).

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

In 2006 Inspections, a total of 73 distribution poles, or 7% of poles inspected, were found to be defective.

27 distribution poles were found to have wood decay at or below ground level, 46 poles were found to have decay on the tops, animal destruction or structural cracks in the main body.

Our Pole inspection for 2009 resulted in 40 distribution poles to be defective with top rot, all being Class 5, 45' wood poles.

c) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

72 of the 73 poles noted from 2006 inspection have been replaced. We will continue our replacements of poles per the 2009 inspection.

Poles replaced in 2009.

6 - (8% of poles failing inspection) – Class 5, 45' wood poles were replaced in 2009

6 - (8% of poles failing inspection) – Class5, 35' wood poles were replaces in 2009

3 - (4% of poles failing inspection) – Class 5, 30' wood poles were replaced in 2009

5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

   The City of Newberry trims all distribution lines on a three (3) year cycle and attention is given to problem trees during the same cycle. Any problem tree not located within the right-of-way is addressed with the property owner and a solution is agreed upon before corrective actions are taken.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.
   One third (1/3) of the Distribution facilities are trimmed every year to obtain a three year cycle.

6. Storm Hardening Research

The City of Newberry is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com

Ocala FL/City of Ocala Utility Services
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2009

1) **Introduction**

   a) **Ocala FL/ City of Ocala Utility Services**

   b)
   2100 NE 30th Ave.
   Ocala, FL 34470

   c)
   David Anderson
   Regulatory Manager
   Phone (352)351-6693
   Fax (352)401-6961
   danderson@ocalafl.org

2) **Number of metered customers served in calendar year 2008**

City of Ocala Utility Services has a total electric service territory of 160.2 sq. miles and serves a total of 48,569 metered Electric Customers

Customer Break down:

Residential Customers	39,726
General Service Customers	7,402
General Service Demand Customers	968

3) **Standards of Construction**

   a) **National Electric Safety Code Compliance**

City of Ocala Utility Services standards, policies, guidelines, practices and procedures comply with the NESC. The City of Ocala passed an ordinance on 12/18/2007 requiring all new developments to be underground. This ordinance will help lessen exposure to wind damage and speed restoration efforts after future storm evehts.

b) Extreme Wind Loading Standards

City of Ocala Utility Services standards, policies, guidelines, practices and procedures comply with the extreme wind loading standards of the NESC for:

a. New Construction.

b. Expansion, rebuild, or relocation of existing facilities.

The City of Ocala passed an ordinance on 12/18/2007 requiring new developments to be underground. This ordinance will help lessen exposure to wind damage and speed restoration efforts after future storm events.

c) Flooding and Storm Surges

Ocala is located 80 miles from the west coast of Florida and is not subject to storm surge and has limited exposure to flooding. Both the City of Ocala and Marion County require new developments to provide water retainage for 100 year, 24 hour events. The previous standard was a 10 year, 24 hour event. City of Ocala Utility Services practices do not allow poles and underground equipment within retention areas, swales or other flood prone areas. Where flooding occurs, Ocala evaluates the facilities for relocation to less flood prone areas.

City of Ocala Utility Services is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electric construction standards, policies, guidelines, practices, and procedures at the City of Ocala Utility Services provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Our policy is to install all new overhead and underground facilities adjacent to right-or-way or paved areas to allow for access.

e) Attachments by Others

City of Ocala Utility Services requires attachment agreements with all third party attachees on its poles and requires permits for all new attachments. The permits include information for City of Ocala Utility Services to evaluate the impact of the attachment on pole loading. City of Ocala Utility Services is evaluating all new pole attachments for their impact to pole loading and compliance with the NESC. In addition, as part of our eight-year pole inspection cycle, City of Ocala Utility Services has inspected 31.03% of its poles and pole loading, including attachments, was evaluated as part of that inspection.

4. Facility Inspections

a) **Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.**
Our policy and primary purpose is to be consistent with the Florida Public Service Commission's rules for wood pole inspections and to provide pole restoration where it is economically feasible. Currently we support an eight-year (12.5% yearly) inspection cycle of our system. Our guidelines are selected on geographical areas based on the age of our poles. Practices and Procedures are Above-Ground Inspection, Excavation, Sounding, Boring, Chipping, Internal Treatment, and Evaluation of each pole to determine remaining strength and reject criteria along with pole loading estimates.

b) **Describe the number and percentage of transmission and distribution inspections planned and completed for 2009.**
There were 3,150 distribution poles inspected in 2009. That is 9.8% of the total distribution poles on our system. Since 100% of the transmission poles were inspected in 2007, transmission poles will not be inspected again until the start of our next 8 year inspection cycle.

YEAR	TOTAL NUMBER OF DISTRIBUTION POLES	POLES INSPECTED	% OF TOTAL DISTRIBUTION POLES INSPECTED
2007	28000	2056	7.34
2008	31682	4594	14.50
2009	31573	3150	9.98
TOTALS		9800	31.03

YEAR	TOTAL NUMBER OF TRANSMISSION POLES	POLES INSPECTED	% OF TOTAL POLES INSPECTED
2007	672	672	100
2008	100% Completed in 2007		

c) **Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2009 and the reason for the failure.**
Of the 3,150 distribution poles inspected in 2009, 381 failed inspection due to shell rot or decayed tops. The failure rate is 12.1%. (transmission poles will be inspected again in 2015)

YEAR	NUMBER OF DISTRIBUTION POLES REJECTED	REJECT %	REASON FOR FAILURE
2007	180	8.8	SHELL ROT/DECAYED TOP
2008	480	10.4	SHELL ROT/DECAYED TOP
2009	381	12.1	SHELL ROT/DECAYED TOP
TOTALS	1041	10.6	

YEAR	NUMBER OF TRANSMISSION POLES REJECTED	REJECT %	REASON FOR FAILURE
2007	35	5.21	SHELL ROT/DECAYED TOP
2007	61	9.08	OVERLOADED
2008	100% Completed in 2007		
2009	100% Completed in 2007		

d) **Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2009, including a description of the remediation taken.**
Of the 381 distribution poles that were rejected in 2009, 272 will be replaced. That is 71.4% of those rejected will be replaced. The remaining 109 rejected poles, 28.6% of those rejected, will be braced using the Osmose C-Truss. (See the breakdown by type and class below)

YEAR	NUMBER OF DISTRIBUTION POLES BRACED	NUMBER OF DISTRIBUTION POLES REPLACED	% OF REJECTED POLES BRACED	% OF REJECTED POLES REPLACED
2007	80	100	44	56
2008	142	338	29.6	70.4
2009	109	272	28.6	71.4
TOTALS	222	438		

YEAR	NUMBER OF TRANSMISSION POLES BRACED	NUMBER OF TRANSMISSION POLES REPLACED	% OF POLES BRACED	% OF POLES REPLACED
2007	65	31	67.71	32.29

REPLACED POLES BY TYPE AND CLASS		
QUANTITY	TYPE/ HEIGHT (FT)	CLASS
63	30	5
77	35	3
99	40	3
14	45	3
19	50	1

BRACED POLES BY TYPE AND CLASS			
QUANTITY	TYPE/ HEIGHT (FT)	CLASS	REMEDIATION
45	35	3	C-TRUSS
41	40	3	C-TRUSS
20	45	3	C-TRUSS
3	50	1	C-TRUSS

5. Vegetation Management

a) **Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.**

The City of Ocala Utility Services policy is to maintain a three year trim cycle for all Transmission and Primary lines on the system. Additional pruning is scheduled in areas where the Utility must work around City and County designated Canopy areas where minimal trimming is allowed, and where fast growing species outgrow the trim cycle.

City Planning Department works with the Utility when approving site plans to ensure that landscape plans and utility lines do not come into conflict as the plants mature.

The Utility has a Vegetation Management plan, which is submitted to FRCC annually, and provides specific allowable distances for all vegetation in or alongside the 230kV transmission corridor. A four man in house tree crew performs most of the vegetation maintenance along the thirteen mile corridor. They are also responsible for most new construction clearance pruning, and emergency work required by the Utility.

Ocala Utility Services has been awarded Tree Line USA designation for the past 9 years by the National Arbor Day Foundation. Designation requires the Utility to follow the guidelines set forth by the Foundation, which include annual crew training, quality work requirements, customer education and involvement in an Arbor Day celebration.

The Utility employees an ISA Certified Arborist who provides training and guidance to crews, and oversees line clearance operations. To ensure that trees receive the healthiest cuts all pruning is required to conform to the guidelines set forth by Alex Shigo in "Pruning Trees Near Electric Utility Lines" and the ANSI A 300.

In 2006 the Utility renewed its' affiliation with the American Public Power Association and committed to a Remove and Replace program. An aggressive removal program is being pursued and vouchers are provided to customers who agree to allow the Utility to remove problem and hazard trees. Along with the vouchers Right Tree Right Place education is provided so that they plant more appropriate species for their location.

Annually the Utility provides giveaway trees and personnel to assist in planning and participate in community education at the City of Ocala Arbor Day Festival. The Utility Arborist provides educational brochures supporting Right Tree Right Place and participates in the tree giveaway. A Line crew sets up a back-feed demonstration, which emphasizes the danger of trees on power lines and encourages thoughtful planting.

The Utility employees a four man in house tree crew, which performs most of the vegetation maintenance along the thirteen mile 230kV Transmission corridor, new construction clearance, and emergency work.

Additionally a professional tree company (currently Davey Tree) is contracted for routine vegetation maintenance over one third of the system annually, and for demand work which includes trimming or removal of problem and hazard trees, customer requests and hotspot work that is needed outside of the trim cycle. This allows the Utility to respond to problem areas without interrupting scheduled routine maintenance.

As Problem and Hazard trees are removed, and proper pruning techniques are applied over the entire system, tree related outages should become less and less problematic during afternoon storms and high wind events, and damages during major storms should be reduced.

b) **Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.**

The Utility consists of approximately 1000 miles of lines; 770 miles are overhead and approximately 20 run contiguously as 69kV with under-built and / or double circuit; 13 are 230kV. Approximately 250 miles of trimming is scheduled annually for maintenance.

In 2009 The in house tree crew was scheduled, and completed, the re-clearing of just over 4 miles of the 230kV Transmission corridor from NW 27th Ave to Shaw Substation on SE 42nds Street. Several landscape trees were removed from a Hotel landscape south of SR 200 and tree vouchers provided to assist with appropriate replacements.

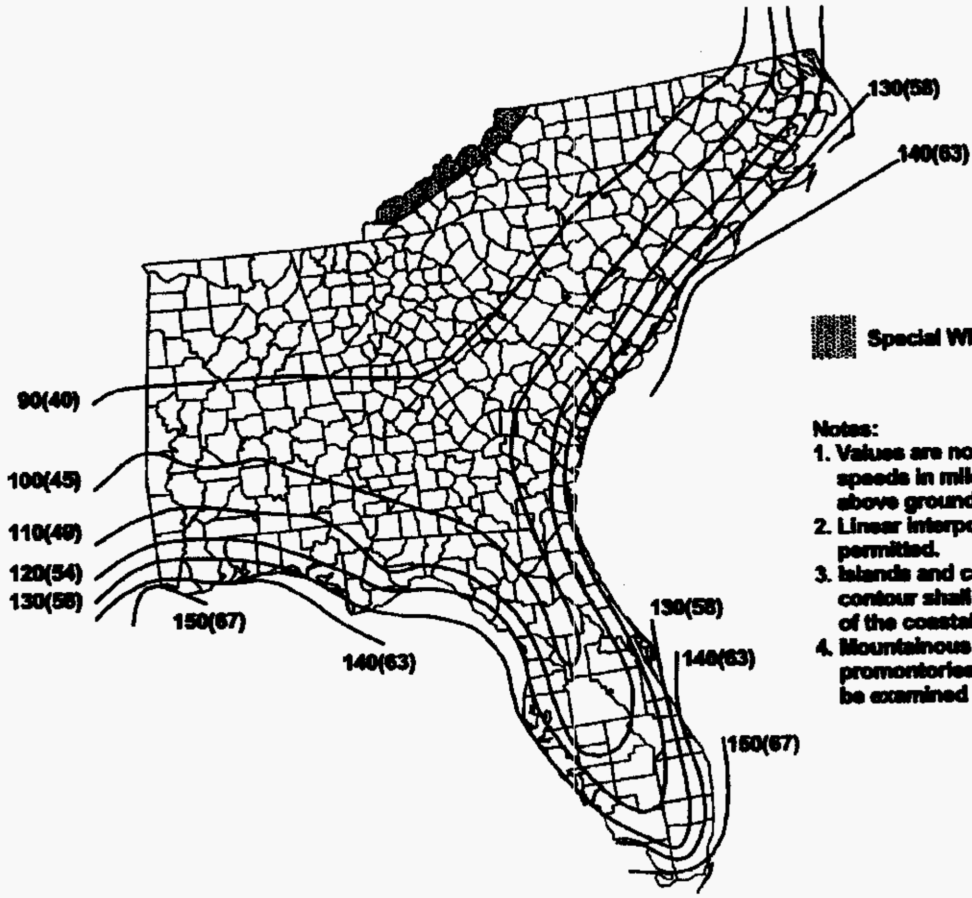
Davey production crews were scheduled to clear just over 230 miles of primary circuits in 2010. The Utility allocated additional funding in June which allowed for completion of all scheduled work plus 23 additional miles. Time and Materials crews were assigned 20 miles of circuit trimming, which was completed as demand work.

The Public Utility Research Center held a vegetation management conference January 26-27, 2009. Through FMEA, the City of Ocala Utility Services has a copy of the report and will use the information to continually improve vegetation management practices.

6. Storm Hardening Research

City of Ocala Utility Services is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

Fig 250-2(d)
Eastern Gulf of Mexico and Southeastern US Hurricane Coastline



Special Wind Region

Notes:
1. Values are nominal design 3-second gust wind speeds in miles per hour (m/s) at 33 ft (10 m) above ground for Exposure C category.
2. Linear interpolation between wind contours is permitted.
3. Islands and coastal areas outside the last contour shall use the last wind speed contour of the coastal area.
4. Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.

REC'D VIA
E-MAIL 3-22-10

Orlando Utilities Commission
Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

City of Orlando, Orlando Utilities Commission

500 S. Orange Avenue, Orlando FL 32801

Contact information:

Clint Bullock, Vice-President, Electric Delivery Business Unit
407-423-9100 ext. 4135, cbullock@ouc.com

Troy Morris, Director, Distribution Construction & Maintenance
407-423-9100 ext. 4193, 407-384-4124 fax, tmorris@ouc.com

2) Number of meters served in calendar year 2009

Orlando Utilities Commission served 264,734 electric meters in the Cities of Orlando and St. Cloud and surrounding Orange and Osceola counties as of December 31, 2009.

3) Standards of Construction

a) National Electric Safety Code Compliance

The Orlando Utilities Commission (OUC) complies with the construction standards, policies, guidelines, practices, and procedures directed within the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. The edition of the NESC in effect at the time of the facility's initial construction governs electrical facilities constructed prior to February 1, 2007.

b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the Orlando Utilities Commission are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares.

OUC has verified that all future construction will meet the NESC requirements with particular focus on the extreme wind loading standards.

c) Flooding and Storm Surges

The Orlando Utilities Commission service area is in the middle of Florida. Therefore, flooding and storm surges do not apply.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at OUC provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

Since the 1980's, Orlando Utilities has been installing underground and overhead distribution along property frontage corridors. This gives efficient and safer access to these facilities. OUC provides vegetation maintenance and replacement of aged equipment to ensure an efficient, safe, & robust system for all OUC facilities including existing rear lot installations.

e) Attachments by Others

Electrical construction standards, policies, guidelines, practices, and procedures at the Orlando Utilities Commission include contractual agreement to enable attachment by others. These contracts state that attachments must adhere to the guidelines of the NESC and all governmental authorities that have jurisdiction.

4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

Summary

Orlando Utilities Commission (OUC) has maintained an active pole inspection and replacement program with records dating back to 1990. We currently uphold an eight-year quadrant based inspection cycle along with annual inspections targeting essential distribution and transmission equipment. Shared transmission structures are inspected and maintained by OUC based on past inspection date.

Distribution and Transmission pole inspection replacements are tracked through an existing maintenance work order database to insure timely replacement.

Inspection Procedures

Visual inspection shall be made of all poles from the ground line to the top before any other inspection. Visual inspection shall include: type of wood, original treatment, circumference, age of pole (if it can be determined), height, obvious splits, woodpecker holes, and any other physical damages to the pole. Also a visual check within the limitations of the inspector's expertise, is to be made at such time of the attachments to the pole being inspected for obvious conditions that appear improper, such as slack guy wires, slack overhead conductors, broken insulators, leaking transformers, missing guy guards, rotten cross arms, loose or faulty equipment, abandoned poles, etc.

Excavation

Earth shall be removed from the entire circumference of the pole to a minimum depth of 18 inches below ground line. Width of the hole shall be 4 inches clearance for the pole surface at the bottom and 10 inches at the ground line.

Poles with electric risers should not be excavated, but should be inspected by sounding, bored and fumigated.

Sounding and Boring

The pole must be sounded from the ground line to a minimum of six feet above the ground line. Sounding shall be done on all four sides of the pole to locate any shell rot or rot pockets on the side.

Sounding shall be done with an approved hammer that leaves a distinctive hammer pattern. If there is evidence of possible interior voids or rot, at least one boring shall be made where a void is indicated. If rot or voids are detected, several borings shall be made per rot or void location and a shell gauge shall be used to determine the extent of all voids or rot. In any event at least two borings shall be made at the ground line to check for rot.

Poles set in concrete or pavement shall be bored at least twice at opposite sides at the ground line down at a 45-degree angle into the pole and the boring sample checked for rot or voids.

Removal of Exterior Decay

All exterior decay must be removed where possible, from 18 inches below the ground line to 3 inches above ground line. The rotted wood is to be removed from the premises and deposed of in a proper manner.

Evaluation of Pole Condition

After the sounding and boring has been performed and all exterior decay has been removed, the effective circumference of the pole, from 18 inches below the ground line to 15 inches above the ground line, is to be determined.

Internal Treatment

All sound poles are to be internally treated if any specific voids of specific internal decay pockets are found. This should involve a sufficient number of bored 3/8 inch holes and the preservative should be applied under at least 50 psi of pressure. Fumigant Treatment – The approved fumigant shall be Mitc-Fume.

Ground Line Treatment

All poles not previously rejected shall be covered from 18 inches below the ground line to 3 inches above the ground line by an Owner approved preservative and moisture barrier film. Preservative treatment should penetrate a minimum of two inches into the pole. Long-term retention studies should be made available to assure results.

b) Number and percentage of transmission and distribution inspections planned and completed for 2009.

Distribution and Transmission Planned Inspections					
Year	**Total System Poles**	**Planned Inspection**	**Planned Percentage of System**	**Inspection Completed**	**Completed Percentage of System**
2009	**51435**	**6400**	**12%**	**6411**	**12%**
2008	51114	6400	12%	6124	12%
2007	50536	6400	12.5%	8124	16%
2006	51203	6400	12.5%	5118	10%

c) Number and percentage of transmission and distribution poles / structures failing inspection and the reason for the failure.

Poles Failing Inspection		
	Percentage of Inspection Failure	**Total Inspected Poles Failing Inspection**
2009	**4.4%**	**280**
2008	3.0 %	189

A detailed report with pole failure causes is attached.

Attachment 1: (OUC 2009 Pole Inspection Report.pdf)

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

Poles needing Remediation					
Year	**Total Inspection Poles Failing Inspection**	**Priority Replacement (Complete)**	**Restoration (Complete) C-Truss**	**Work Orders Generated for Replacement**	**Work Orders Completed**
2009	**280**	**4**	**66**	**210**	
2008	189	9	82	98	62
2007	226	1	81	144	144
2006	208	10	146	52	52

A total of 280 poles failed inspection criteria, four poles deemed priority replacement along with 66 poles which restoration was deemed necessary using a reinforcing truss were completed in 2009. Work orders for the remaining 210 poles have been generated for replacement. A detailed report denoting the type and class structure is attached.

Attachment 1: (OUC 2009 Pole Inspection Report.pdf)

5. Vegetation Management

a) *Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.*

Maintenance Guidelines and Procedures

The Orlando Utilities Commission (OUC) provides essential electrical service closely tied to our communities' safety, economy and welfare. In delivering reliable electrical service OUC manages the vegetation for approximately 1261 miles of overhead distribution lines and 200 miles of transmission lines within Orange and Osceola Counties. Vegetation line clearance of distribution facilities are trimmed on a four year maintenance cycle. Transmission right of ways' are maintained in two sub-divided regions, urban right of way's on an annual cycle, and rural on a three year cycle. Measures to insure our vegetation program is sufficient and remains on schedule, comprise of annual inspections of the distribution and transmission system.

The Public Utility Research Center held a vegetation management conference January 26-27, 2009. Through FMEA, Orlando Utilities Commission has a copy of the report and will use this information to continually improve vegetation management practices.

OUC follows pruning and safety methods outlined in American National Standards Institute A300 and Z133.1. A four-year maintenance cycle of distribution facilities anticipates an average annual growth of 2.5 feet. Trees in close proximity of distribution facilities are trimmed to a minimum distance of 10 feet clearance from energized un-insulated conductors. Fast growing invasive species are targeted for removal during distribution pruning. This proactive measure relieves future trimming requirements and insures clearances within the cycle will be maintained.

The distribution four year cycle is divided into 198 distribution segments reviewed on a quarterly basis. The review is used to make adjustments to crew resources to remain on cycle. OUC currently procures vegetation maintenance labor and equipment through a contract with Davey Tree Experts. The contract comprises 10 production line trimming crews used in distribution and transmission line clearance.

Vegetation pruning requests are tracked using an internal CIS system available in the distribution operations, customer service and construction and maintenance area. Requests generated from a system outage are either trimmed immediately or given a work order priority for completion. The general foreman provides additional feedback if additional area trimming is needed.

Appropriate Planting

OUC outlines appropriate planting through educational information presented by the Central Florida Urban Forestry Council. The council presents a theme "Right Tree in the Right Place" to insure proper distance between trees and power lines. By practicing proper planting our goals to insure safety, reliability and lowered maintenance costs become factors which all of our customers benefit.

Vegetation located outside of the right of way is pruned to a distance 10' from energized conductors. The "Right Tree Right Place" concept is reviewed in cases where removals may become prudent. OUC annually sponsors tree planting events during Arbor Day to promote proper planting.

Measures to insure Sufficient Vegetation Management

OUC has applied a Reliability Centered Maintenance (RCM) approach from NFPA 70B to assure our vegetation management practices area sufficient. An annual inspection of all main feeder distribution lines is conducted to survey acceptable clearances in distribution system throughout the four-year treatment plan. The RCM inspections document vegetation to conductor distances with less than one year's anticipated growth (2.5'). Vegetation work orders are generated and completed during a seasonal non-peak times frame to insure electrical system is fully prepared for the Florida summer storm season.

Two measures are used to verify sufficient vegetation management in our maintenance cycle.

a. The documented number of RCM clearances are compared against the trim cycle order. (A circuit about to be trimmed is expected to have more areas of clearance)

b. Outage management system (OMS) indices relating to sustained and momentary outages are also compared to the trim cycle order.

Example: Sufficient Vegetation Management

Reliability Centered Maintenance Inspections (RCM)

a. b.

Distribution Vegetation Management Program (DVMP)

Four Year Treatment Schedule

OUC The *Reliable* One

Line	Segment [redacted]	Work Scheduled		[redacted]													
	GIS 12/01/07	Initiated Date	Completion Date	2009 RCM Circuit Clearance Inspection						Reliability 2007	Foliage Related Outages	2007 RCM Circuit Clearance Inspection					
Cycle Treatment Year 1 Fiscal Year 2010										Last Treatment 2006							
First Quarter - October / December				0'	1'	2'	3'	Total	Tickets Complete	Relays 2007		0'	1'	2'	3'	Total	Tickets Complete
1	3-14*	July-09	October-09							17	200	1	3			4	
2	10-15	August-09	August-09							7			2			2	
3	14-21	Non Billable	Non Billable													0	
4	1-22	July-09	November-09							7	1105					0	
5	14-41	Non Billable	Non Billable													0	
6	3-23	August-09	September-09							7	65		1			1	
7	12-12	July-09	August-09							4	1693	20	15			35	
8	25-213	September-09	December-09		2	3	10	15		36	1678	2	4	5	7	18	
9	10-11	August-09	December-09							11	1326	1	8			9	
10	1-33	July-09	November-09							3						0	
	Quarterly Mileage																
Second Quarter - January / March				0'	1'	2'	3'	Total	Tickets Complete	Relays 2007		0'	1'	2'	3'	Total	Tickets Complete
11	4-12	November-09	December-09							2	375	6	2			8	
12	1-32									2	104					0	
13	4-31	Oct-09	November-09							1		2				2	
14	12-11	November-09								15	2388	37	13			50	/21-23-5/1/0

b) *Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.*

Annual Plan

The 2009 annual budget for Distribution and Transmission Vegetation management was approximately 3.0 million dollars and will remain consistent for 2010. OUC plans to continue with treatment of 330 miles of distribution line clearance and 99 miles of transmission ROW to remain on established cycles. Treatment of distribution line clearance will consist of bucket and rear lot climbing crews. Treatment of the transmission rural corridors, conducted on a three-year cycle, maintained using a combination of integrated vegetation management (IVM). Transmission urban corridors are maintained annually with a more traditional pruning and removal maintenance methods.

Vegetation Treatment				
Year	Distribution Total System Miles 1261 (4 Year Cycle)		Transmission Total System Miles 213 (Urban-Annual, Rural 3 Year Cycle)	
	Planned	Completed	Planned	Completed
2009	328	100%	105	100%
2008	330	100%	99	100%
2007	330	100%	114	100%

2009 Distribution Maintenance Schedule
(Work Completed)

Distribution Vegetation Management Program (DVMP)

Four Year Treatment Schedule

Last revised (2/21/2010)

Line	Segment [redacted] GIS 12/01/07	Work Scheduled Initiated Date	Completion Date	Budgeted Costs Based from GIS Mileage: Feeder Circuit Non-Truck + Truck Miles	Non Truck Miles	Truck Miles	Non Billable Miles	Budget Production Cost
Fiscal Year 2009								
First Quarter - October / December								
148	4-13	[redacted]		4.10	2.90	1.20		$22,092.80
149	27-226			18.25	2.66	15.59		$56,488.97
150	2-33			5.40	2.06	3.34		$22,584.12
151	33-213			14.07	3.09	10.98	0.13	$50,413.06
152	9-31			8.49	1.40	7.09		$26,700.10
153	18-32			4.11	0.25	3.86		$12,310.20
154	20-11			6.47	4.28	2.19	0.69	$33,768.46
155	19-12			4.88	2.49	2.39	0.30	$22,735.58
156	2-42			7.42	0.64	6.78		$22,922.68
157	2-14			5.52	3.02	2.50	1.60	$26,470.44
158	6-23			7.02	2.21	4.81	2.04	$27,626.82
	Quarterly Total Mileage			85.73	25.00	60.73	4.66	$325,111.25
Second Quarter - January / March								
159	11-23	[redacted]		12.85	7.99	4.86		$65,173.48
160	12-33			6.64	1.27	5.37	0.16	$23,094.34
161	6-13			6.29	3.88	2.41		$31,787.06
162	13-13			5.70	0.90	4.80		$19,120.80
187	4-44			1.77	0.17	1.60		$5,532.24
163	2-22			6.70	3.00	3.70	0.78	$29,665.00
164	13-21			5.15	0.95	4.20		$17,782.40
165	10-21			7.15	0.31	6.84		$20,953.12
166	9-22			4.33	0.81	3.52	0.44	$14,992.72
190	8-23			4.03	3.00	1.03	0.23	$22,269.10
167	5-13			6.65	3.82	2.83		$32,562.14
168	10-43			5.19	0.70	4.49		$16,967.70
169	9-34			7.27	2.90	4.37	0.13	$30,873.70
	Quarterly Total Mileage			79.72	29.70	50.02	1.74	$330,773.80
Third Quarter - April / June								
170	4-42	[redacted]		0.51		0.51		$1,416.47
171	6-14			4.18	1.95	2.23	0.29	$18,765.14
172	16-14			0.54		0.54	0.01	$1,495.80
173	14-44			1.55	1.25	0.30	0.56	$8,921.00
174	17-23			1.60	0.00	1.60	0.76	$4,432.00
175	30-25			0.93	0.88	0.05		$5,833.86
176	11-33			3.66	0.18	3.48		$10,804.56
177	29-222			61.13	15.05	46.08		$210,530.00
178	6-11			3.49	1.77	1.72		$16,219.84
179	32-13			1.80	1.80	0.00	2.27	$11,649.60
180	6-21			3.06	1.62	1.44		$14,473.44
181	4-33			0.24		0.24		$664.80
	Quarterly Total Mileage			82.69	24.50	58.19	3.91	$305,205.51
Forth Quarter - July / September								
182	20-32	[redacted]		2.31	1.21	1.10		$10,878.12
183	13-22			2.84	0.34	2.50		$9,125.48
184	11-31			1.94	0.07	1.87		$5,632.94
186	5-44			3.68	0.56	3.12	0.96	$12,260.25
188	21-13			0.68	0.30	0.38	0.30	$2,994.20
189	12-35			2.60	0.76	1.84		$10,015.52
191	33-214			3.40	0.93	2.47	0.99	$12,062.81
193	9-13			5.87	1.42	4.45		$21,516.74
194	18-42			7.99	0.23	7.76	0.14	$22,983.76
195	16-21			4.15	2.39	1.76		$20,343.29
196	18-24			5.53	0.02	5.51		$15,392.14
197	13-11			1.62	0.12	1.50		$4,931.64
198	20-12			0.78	0.03	0.75		$2,271.66
	Quarterly Total Mileage			43.39	8.38	36.01	2.39	$159,428.64

2010 Distribution Maintenance Schedule
(Work Plan)

Distribution Vegetation Management Program (DVMP)

Four Year Treatment Schedule

Last revised (2/21/2010)

Line	Segment [redacted] GIS 12/01/07	Work Scheduled Initiated Date	Completion Date	Budgeted Costs Based from GIS Mileage [illegible] Circuit Non-Truck + Truck Miles	Non Truck Miles	Truck Miles	Non Billable Miles	Budget Production Cost
Cycle Treatment Year 1 Fiscal Year 2010				**Previous Treatment 2006**				
First Quarter - October / December								
1	3-14*	July-09	October-09	9.47	2.07	7.40		$33,898.04
2	10-15	August-09	August-09	3.05	0.94	2.11	1.16	$11,928.38
3	14-21	Non Billable	Non Billable	0.00			0.34	$0.00
4	1-22	July-09	November-09	5.60	0.20	5.40		$16,252.40
5	14-41	Non Billable	Non Billable	0.00			0.53	$0.00
6	3-23	August-09	September-09	2.81	1.47	1.34	1.88	$13,225.64
7	12-12	July-09	August-09	5.72	1.72	4.00	0.82	$22,211.84
8	26-213	September-09	December-09	45.38	11.48	33.90	0.26	$157,523.06
9	10-11	August-09	December-09	7.93	0.66	7.27		$24,409.42
10	1-33	July-09	November-09	0.60	0.05	0.55	0.58	$1,847.10
	Quarterly Mileage			80.56	18.59	61.97	5.57	$281,292.88
Second Quarter - January / March								
11	4-12	November-09	December-09	6.56	0.15	6.40	0.30	$15,928.60
12	1-32			0.20	0.20	0.00		$1,299.94
13	4-31	Oct-09	November-09	2.21	1.40	0.81		$11,304.50
14	12-11	November-09		13.98	3.31	10.67		$50,978.22
15	26-221			9.80	4.90	4.90		$43,742.30
16	12-311	Sep-09	November-09	8.53	4.73	3.80		$41,138.56
17	14-23	Nov-09		6.56	5.35	1.21	0.70	$37,976.90
18	12-31	December-09		6.90	2.30	4.60		$27,627.60
19	12-312	Oct-09	Nov-09	4.31	1.02	3.29	4.70	$15,714.74
20	27-224	January-10		2.94	0.67	2.27	0.02	$9,909.09
21	9-21	Aug-09	December-09	5.00	2.37	2.63	1.26	$22,623.74
22	3-21	Oct-09	January-10	4.82	1.62	3.30		$18,878.44
23	2-11	Nov-09		1.62	0.32	1.30	0.08	$5,672.04
24	1-13	Oct-09		6.84	1.10	5.74		$23,019.00
25	2-31	Oct-09	January-10	11.82	2.80	9.02	0.00	$43,107.00
185	27-212			19.20	6.09	13.11	1.11	$71,599.53
	Quarterly Total Mileage			91.08	32.14	58.94	7.06	$369,020.87
Third Quarter - April / June								
26	14-24			0.30	0.00	0.30	1.23	$837.47
27	9-11			9.51	2.40	7.11	1.11	$36,227.50
28	29-223			20.54	3.62	16.92	0.12	$64,967.24
29	17-22			0.00	0.00	0.00	.50	$0.00
30	2-41			8.80	2.70	6.10	0.02	$34,371.40
31	21-12			1.39	0.01	1.38		$3,864.96
32	1-34			8.59	1.19	7.40	0.22	$26,199.68
33	2-13			8.90	4.70	4.20	1.60	$42,052.40
34	17-13			1.84	0.00	1.84	0.46	$5,096.80
35	1-14			7.22	3.62	3.60		$33,368.28
36	11-32			1.92	0.21	1.71		$6,096.82
37	9-32			7.21	0.97	6.24		$23,562.64
	Quarterly Total Mileage			76.21	19.41	56.80	4.76	$277,634.19
Forth Quarter - July / September								
38	10-42			1.41	0.09	1.32		$4,238.86
39	17-12			6.82	2.18	4.64		$26,961.76
40	1-43			2.94	0.33	2.61		$9,365.46
41	12-22			3.23	0.68	2.55		$11,464.46
42	2-12			6.61	4.08	2.53	0.66	$33,413.86
43	27-214			14.04	1.95	12.09	0.09	$42,301.36
44	9-23			5.54	0.33	5.21	0.60	$16,567.46
45	5-22			5.28	3.96	1.32	1.23	$29,266.52
46	21-14			0.04		0.04		$110.80
47	12-21			12.56	2.46	10.10		$43,898.12
48	17-24			11.07	2.45	8.62	0.65	$39,733.80
49	11-21			12.19	2.46	9.73		$42,873.22
192	27-231			18.22	2.64	15.58		$55,334.98
	Quarterly Total Mileage			99.95	23.61	76.34	3.13	$355,549.87
	Annual Total Miles			347.80	93.76	254.05	20.52	$1,283,497.61
Total Annual Variance Amount								

2009 Transmission Schedule
(Work Completed)

Transmission Vegetation Maintenance Treatment

ROW Corridor Segment (Map)	OUC Line	Description	Structure Number Begin	Structure Number End	Miles Rural	Miles Urban	Anticipated Date of Treatment	Date Assigned	Date Completed	Contractor Inventory Segment Q/C Inspection	Q/C Date Inspected OUC
	***Treatment Year Three* - June 1, 2009 - May 30, 2010**										
	All Urban ROW Corridors (1 thru 19) - ANNUAL CYCLE										
1	5-0212	Pine Hills to Country Club	1	48		3.22	8/1/09	8/1/09	09/11/09	09/17/09	12/18/09 mm wz
2	7-02FPC	Pine Hills to FPC at Dolores W/O Emeralda	1	27		1.06	8/1/09	8/1/09	08/27/09	09/17/09	12/18/09 mm wz
3	5-0214	Pine Hills to Turkey Lake	428	365		3.03	8/1/09	8/1/09	09/07/09	09/17/09	12/18/09 mm wz
4	5-1424	Turkey Lake to Southwood	362	343		1.82	8/1/09	8/1/09	09/17/09	09/22/09	12/18/09 mm wz
5	5-2406	South Term Sub 24 to Southwood Sub 5	341	303		1.74	8/1/09	8/1/09	09/17/09	09/22/09	12/18/09 mm wz
6	5-0506 A	Southwood to Martin (KingsPointe) East Line	260	201		2.83	8/1/09	8/1/09	09/29/09	09/28/09	12/18/09 mm wz
	7-06FPC	Southwood to Windemere	74	67			8/1/09	8/1/09			
7	5-0506 B	Southwood to Martin	1	14		1.80	8/1/09	8/1/09	09/28/09	09/26/09	12/18/09 mm wz
8	5-06-30	Martin to Convention Center	14	16		0.41	8/1/09	8/1/09	09/25/09	09/26/09	12/18/09 mm wz
9	5-0405	Holden to Southwood	606	586		3.56	8/1/09	8/1/09	08/21/09	08/21/09	12/18/09 mm wz
10	5-0409	Holden to Michigan	2	78		3.20	8/1/09	8/1/09	09/19/09	09/19/09	12/18/09 mm wz
11	5-0910	Michigan to America (On Division)	58	132		3.73	8/1/09	8/1/09	09/28/09	09/25/09	12/18/09 mm wz
12	5-1013	America to Kaley	1	28		1.44	8/1/09	8/1/09	09/25/09	09/26/09	12/18/09 mm wz
13	5-1616	Michigan and Gowen to Bumby and Jersey	1	5		0.21	8/1/09	8/1/09	09/22/09	09/26/09	12/18/09 mm wz
14	5-0916	Michigan to Grant	1	52		2.30	8/1/09	8/1/09	09/08/09	09/26/09	12/18/09 mm wz
15	5-0809	Michigan to Pershing (Follows Rasford Rd)	2	93		5.48	8/1/09	8/1/09	09/26/09	09/26/09	12/18/09 mm wz
16	5-0816	Grant to Pershing	1	27		2.09	8/1/09	8/1/09	09/08/09	09/26/09	12/18/09 mm wz
17	7-822	Pershing to Sub 22 Term Site	135	157		3.42	8/1/09	8/1/09	09/25/09	09/25/09	1/12/2010 mm wz
18	5-0806 A & B	Azalea to Pershing A & B	143	182		4.14	8/1/09	8/1/09	09/25/09	09/25/09	12/18/09 mm wz
19	4-2710SS	Shared W/ KUA	2	64		2.64	8/1/09	8/1/09	09/26/09	09/26/09	11/18/2009 mm wz
	1/3 of Rural ROW Corridors (28 thru 33) - THREE YEAR CYCLE										
28	7-1517	Sub 15 to Sub 17	67	180	23.85		8/1/09	12/01/08	09/29/09	9/30/09-10/1/09	1/12/10 mm wz
	7-SEC-1	Stanton Unit 1 Generator									
	7-SEC-2	Stanton unit 2 Generator									
	7-17RAT2	SEC Reserve Aux Trans 2									
	7-17RAT1	SEC Reserve Aux Trans 1									
	7-1731	Sub 17 to SEC Unit3									
	7-16 19	Taft to Airport Industrial Park	1A	14							
	7-2332	Sub 32 to Sub 23 South Term Site	102A	109							
29	4-2726	Central to North	1	120	8.60		6/1/09	12/01/08	09/30/09	10/2/09	11/18/09 mm wz
30	4-2829				7.55		6/1/09	10/15/08	03/02/09	3/2/09	pending map
31	7-29FPC	North to Holopaw	1	69	8.13		6/1/09	10/15/08	07/11/09	11/18/09	1/12/10 mm wz
32	5-2933	Sub 29 to Sub 33			10.80		6/1/09	New Const	10/29/09	11/18/09	11/18/09 mm wz
33	5-3327	Sub 33 to Sub 27 UG Termination			4.70		6/1/09	New Const	10/29/09	11/18/09	11/18/09 mm wz
		Total Proposed Annual Miles Treated			63.63	48.12					

Urban Total ROW Miles	**48.12**
Rural Total ROW Miles	**165.50**
Total Urban + Rural ROW Miles	**213.62**

2010 Transmission Schedule
(Work Plan)

Orlando Utilities Commision

OUC The *Reliable* One

Transmission Vegetation Management Program (TVMP)

Annual Maintenance Scehdule June 1, 2010 - May 30, 2011

Treatment Cycle Year One

Urban ROW Corridors 1 - 19 TREATMENT ON AN ANNUAL CYCLE

ROW Corridor Segment (Map)	OUC Line	Description	Structure Number Begin	Structure Number End		Miles Urban	Anticipated Date of Treatment	Date Assigned	Date Completed	Contractor Inventory Segment Q/C Inspection	Q/C Date Inspected OUC
1	5-0212	Pine Hills to Country Club	1	48		3.2	07/19/10				
2	7-02FPC	Pine Hills to FPC at Dolores W/O Emeralda	1	27		1.1	08/11/10				
3	5-0214	Pine Hills to Turkey Lake	428	365		3.0	08/13/10				
4	5-1424	Turkey Lake to Southwood	382	343		1.8	08/06/10				
5	5-2405	South Term Sub 24 to Southwood Sub 5	341	303		1.7	08/04/10				
6	5-0508 A	Southwood to Martin (KingsPointe) East Line	280	201		2.8	09/04/10				
	7-05FPC	Southwood to Windemere	74	67							
7	5-0508 B	Southwood to Martin	1	14		1.5	08/10/10				
8	5-08-30	Martin to Counvention Center	14	18		0.4	08/10/10				
9	5-0405	Holden to Southwood	508	586		3.6	07/29/10				
10	5-0409	Holden to Michigan	2	78		3.2	08/02/10				
11	5-0910	Michi gan to America (On Division)	58	132		3.7	10/01/10				
12	5-1013	America to Kaley	1	28		1.4	10/01/10				
13	5-1518	Michigan and Gowen to Bumby and Jersey	1	5		0.2	10/01/10				
14	5-0916	Michigan to Grant	1	52		2.3	10/01/10				
15	5-0609	Michigan to Pershing (Follows Raeford Rd)	2	93		6.5	11/17/10				
16	5-0616	Grant to Pershing	1	27		2.1	10/14/10				
17	7-622	Pershing to Sub 22 Term Site	135	157		3.4	12/04/10				
18	5-0306 A & B	Azalea to Pershing A & B	143	182		4.1	11/28/10				
19	4-27KISS	Shared W/ KUA	2	64		2.6	12/08/10				

Total Urban Annual Treatment Miles 48.1

Rural ROW Corridors 20-21 TREATMENT ON A THREE YEAR CYCLE

	OUC Line	Description	Structure Number Begin	Structure Number End	Miles Rural		Anticipated Date of Treatment	Date Assigned	Date Completed	Inventory Segment Q/C Inspection	Q/C Date Inspected OUC
20a	5-0607 A	Pershing to Indian River A	7	71	32.0		3/1/2010 Enviremental wheather conditions				
20b			72	139			4/1/10				
20c			140	209			5/1/10				
20d			210	258			6/1/10				
	5-0607 B	Pershing to Indian River B	0	130			7/1/10				
	7-0717 A	Indian River to Stanton A&B	54E	54B							
	7-0717 B	Indian River to Stanton A&B	135	158							
	7-0617A	Pershing to Stanton (Shares 5-0607) ROW	1	34							
	7-0617 B	Pershing to Stanton (Shares 5-0607) ROW	1	34							
	7-17 FPC A	Stanton to Curry Ford	23	53							
	7-17 FPC B	Stanton to Rio Pinar	23	53							
	7-07FPL"A"	Indian River to FPL Canaveral "A"	125	127							
	7-07FPL"B"	Indian River to FPL Canaveral "B"	125	127							
21	4-28FPC-MR	Narcoosee@ Kirby Smith to Sub 26	1	176	19.0		1/1/10				

Total Rural Annual Treatment Miles 51.0

Total Urban + Rural ROW Miles 99.1

6. Storm Hardening Research

Orlando Utilities Commission is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext.1, or bmoline@publicpower.com.

City of Quincy
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

a) City of Quincy

b) 423 W Washington St, Quincy, FL 32351

c) Mike Wade
Director of Utilities
(850)618-0040 -- (office)
(850)875-7357 -- (fax)
mwade@myquincy.net

2) Number of customers served in calendar year 2009

4,955

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Quincy comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the City of Quincy are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares.

The City of Quincy is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

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Division of SSC

c) Flooding and Storm Surges

The City of Quincy is not located near a coastal area and is not exposed to severe flooding or storm surges.

However, we are participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Quincy provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that The City of Quincy's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. The City of Quincy decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

e) Attachments by Others

The City requires the joint user of city owned poles to provide additional guy restraints where necessary to satisfy additional loading requirements at the time attachments are made.

4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

The City of Quincy did drive-by patrols of all poles in the distribution system in 2009.This allowed the city to identify structures that were of immediate threat.

Inspection procedures were implemented in 2008 to use the "sound and bore technique" to inspect poles over an 8 year period for the entire system.

b) Number and percentage of transmission and distribution inspections planned and completed for 2009.

Drive-by inspections were carried out on all 2,842 distribution poles for 2009.

Sound and bore inspections were carried out on 773 circuit feeder poles in 2009. This is 27 % of the total number of distribution poles.

Detailed inspections were carried out on all 31 transmission poles for 2009.These poles are made of concrete and all were found to be in good condition.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

The City of Quincy had 33 poles or 1.1% that failed distribution inspection. The poles showed signs of rotting around the base of the pole.

No transmission poles failed inspection.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

The City of Quincy replaced 10 distribution poles in 2009 for reasons mentioned in (c) above. Additional poles that failed the pole inspection have been prioritized by need and will be changed out in 2010.

5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Quincy trims 25% of its system each year for the past 4 years using in-house crews.

The city contracted with a tree service in 2009 to provide approximately 30,000 l.f. of right of way trimming. The City of Quincy plans to intensify the vegetation management program by acquiring additional staff and employ contractors in the months prior to the hurricane season and as funds are available.

Trees that are outside the city's right-of way that are deemed a threat are removed only after discussion with the owner. At times the City replaces trees for the customers with a slower growth option.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

Approximately 25 miles or 24% of medium vegetation trimming was planned and completed on the distribution system.

100% of our transmission lines were inspected in 2009.

6. Storm Hardening Research

The City of Quincy is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

Reedy Creek Improvement District
Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

a) Reedy Creek Improvement District

b) 1900 Hotel Plaza Blvd, Lake Buena Vista, FL 32830

c) C. Ray Maxwell, District Administrator, 407-934-7853, Fax: 407-934-6200, ray_maxwell@rcid.dst.fl.us

2) Number of customers served in calendar year 2009

Reedy Creek Improvement District had 1,282 electric customers in 2009.

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the Reedy Creek Improvement District (the "District") comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the District are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares. The District is primarily an underground utility by standard design with less than 15 miles of overhead lines and more than 275 miles of underground.

c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at the Reedy Creek Improvement District address the effects of flooding on underground distribution facilities and supporting overhead facilities. Storm surges do not apply to the District as it is located in Central Florida 60 miles away from the nearest coastal areas. The District has no underground vault switchgear.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the District provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

e) The District does not have any foreign attachments on its facilities.

4. Facility Inspections

The District's 69kV "transmission system" (Note: For the purposes of this report, transmission is defined as 69kV and distribution is defined as 12.5kV. RCID is not a Transmission Owner or Transmission Operator as defined by NERC) has no wooden poles in service, all poles are constructed of concrete or steel. The system includes approximately 15 miles of overhead transmission right-of-way. The District's 12.5kV "distribution system" is essentially an underground system with a very limited amount of overhead. The overhead distribution includes only 13 wood poles with the remainder of the distribution overhead on concrete or steel.

a) The District's overhead transmission system is ridden monthly by Utility Division personnel for the purpose of performing a basic visual inspection of the condition of the poles, lines and right of way. Distribution wood poles are inspected every 2 years.

b) All distribution wood poles were inspected and treated by an outside contractor in 2008.

c) All distribution poles passed inspection. Three wood transmission poles were identified to have excessive internal decay and classified as non-priority rejects.

d) Based on the 2008 inspection results all remaining District wood transmission polls were replaced in fiscal year 2009. No distribution pole replacement or remediation on District poles are required based on the 2008 inspection results.

5. Vegetation Management

a) The District's 15 miles of transmission right-of-ways are ridden monthly for the purpose of visual inspection including vegetation issues. The District contracts tree trimming each spring to clear any issues existing on District right-of-ways. In 2006, the trimming plan was enhanced to cut back all vegetation on the transmission right-of-ways that could potentially "fall" into the lines. Trimming completed in 2007 and that planned for spring 2008 will complete this more aggressive approach on all transmission lines. Limited vegetation areas exist within the District distribution system and these limited areas on the distribution system are maintained along with the transmission system program.

b) In 2007, approximately 90% of all the transmission right-of-ways were addressed per the more aggressive trimming plan described above with the remainder to be completed in spring 2008.

c) In 2008, the aggressive trimming plan described above was completed for all District transmission right-of-ways. Monthly inspections on all District transmission right-of-ways were conducted to address any areas of rapid growth or encroachment.

d) Periodic inspections conducted in 2009 of right-of-ways continue to show no vegetation encroachment upon District transmission or distribution assets.

6. Storm Hardening Research

RCID is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

This filing is submitted in response to Commission Rule 25-6.0343 Municipal Electric Utility and Rural Electric Cooperative Reporting Requirements on behalf of Reedy Creek Improvement District. The electronic file is in Adobe Acrobat format and is a total of 4 pages in length. The report responds to each of the required subsections of the previously stated rule.

Respectfully,

s/Bernie A. Budnik
Manager Electric Operations
Reedy Creek Energy Services
5300 Center Drive
Lake Buena Vista, FL 32803
Office: 407-824-6441
e-mail: Bernie.budnik@disney.com

City of Starke
Report to the Florida Public Service Commission Pursuant to
Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

a) City of Starke

b) P.O. Drawer C, 209 N. Thompson St.,Starke, Fl 32091

c) Ricky Thompson, Operations Manager
Phone 904-964-5027
Fax 904-966-0584
rthompson@cityofstarke.org

2) Number of meters served in calendar year 2009

2,753 Meters

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Starke comply with the National Electrical Safety Code (ANSI C-2) (NESC). For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007 are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

The City of Starke participates in the Public Utility Research Centers (PURC) granular wind research study through the Florida Municipal electric Association.

c) Flooding and Storm Surges

Flooding and storm surges are not applicable. The City of Starke is an inland community with the nearest coastline being 60 plus miles away.

5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Starke has an Annual Tree Trimming and Vegetation contract with Gainesville Regional Utilities to provide 8 weeks of annual tree trimming. The City of Starke has Electric Department employees that trim trees yearly as needed. We trim 33% of our distribution system annually.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2009.

The City of Starke trims distribution lines throughout the year as needed and when applicable removes dead or decayed trees. Trees that are not on our right of way and present a concern or safety issues are addressed with the property owner. The City of Starke will trim 33% of our electrical distribution system in the year 2009.

6. Storm Hardening Research

City of Starke is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext.1, or bmoline@publicpower.com.

City of Tallahassee
Your Own Utilities™

2602 Jackson Bluff Road, Tallahassee, Florida 32304, (850) 891-4YOU (4968), talgov.com

February 23, 2010

Mr. Marshall Willis
Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Storm Hardening Report for Rule 25-6.0343, F.A.C. Calendar Year 2009

Dear Mr. Willis

Attached is the City of Tallahassee Electric Utility - System Hardening Report to the Florida Public Service Commission pursuant to Rule 25-6.0343, F.A.C. for calendar year 2009.

If you have any questions regarding our submission please feel free to contact me at 850-891-5003 or e-mail me at gary.oberschlake@talgov.com.

Sincerely,

Gary Oberschlake

Gary Oberschlake
Manager - Electric T&D
Electric Utility

Attachment

Cc: Kevin G. Wailes
Brian D. Fisher

System Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2009

From the City of Tallahassee Electric Utility February 24, 2010

1) **Introduction**

   a) City of Tallahassee Electric Utility

   b) 2602 Jackson Bluff Road, Tallahassee, Florida 32304-4408

   c) Contact:

Kevin G. Wailes
General Manager - Electric Utility
Office Phone # (850) 891-5532
Fax # (850) 891-5162
Kevin.Wailes@talgov.com

Or

Gary A. Oberschlake
Manager - Electric T&D
Phone Number (850) 891-5003
Fax# (850) 891-5033
Gary.Oberschlake@talgov.com

Or

Brian D. Fisher
Manager - Power Engineering
Phone Number (850) 891-5034
Fax# (850) 891-5162
Brian.Fisher@talgov.com

2) **Number of customers served in calendar year 2009– 112,785 customers**
   Number of customers served in calendar year 2008– 112,590 customers

3) Standards of Construction

a) National Electric Safety Code Compliance

The City of Tallahassee Electric Utility (City) has adopted the National Electric Safety Code as the standard for electric transmission and distribution system design and therefore designs electric transmission and distribution facilities to the latest edition of the National Electric Safety Code. During the calendar year 2009, the City designed new facilities according to the 2007 Edition of the NESC, as this is the current version. All distribution engineering standards, guidelines, policies, practices and procedures are in accordance with this Code. The City has examples of pole loading in our construction standards detailing an easily manipulated process by which our design staff determines the loads for the City's poles. (See Exhibits 1, 2 and 3).

Exhibit 1

TABLE I

FORCE ON CONDUCTORS DUE TO 9 LB. PER SQ. FT. WIND (with Grade C Overload Factor)

CONDUCTOR	FORCE IN POUNDS PER FOOT
#4 AAAC BARE	.413
#1/0 AAAC BARE	.667
#1/0 AAAC COV.	1.173
#4/0 AAAC BARE	.[illegible]
#4/0 AAAC COV.	1.296
#556 AAAC BARE	1.418
#556 AAAC COV.	1.[illegible]
#4TPX	.971
#1/0 TPX	1.591
#4/0 TPX	2.066
#1/0 QPX	1.691
#4/0 QPX	2.[illegible]

TABLE II

FORCE ON TRANSFORMERS DUE TO 9LB. PER SQ. FT. WIND (with Grade C Overload Factor)

SIZE, KVA	FORCE IN POUNDS
5–10	44
25–37.5	75
50	81
75	134
100	134
167	143
250	154
Capacitor Bank, 600 kvAR	132
Regulator Platform	605 (At attachment point)

PROCEDURE:

1. CONDUCTOR LOAD: MULTIPLY THE VALUE IN TABLE I BY THE SUM OF 1/2 THE SPAN LENGTH ON EACH SIDE OF THE POLE.
2. MULTIPLY THE VALUE OBTAINED IN (1) BY THE HEIGHT ABOVE THE GROUND. STEPS (1) AND (2) SHOULD BE DONE FOR EACH CONDUCTOR AT A DIFFERENT HEIGHT. FOR THREE CONDUCTORS ON A CROSSARM, MULTIPLY BY THREE.
3. IF EQUIPMENT IS ON THE POLE, MULTIPLY THE VALUE IN TABLE II BY THE ATTACHMENT HEIGHT.
4. SUM ALL VALUES OBTAINED IN STEPS (2) AND (3). RESULTS WILL BE IN FOOT- POUNDS.
5. COMPARE WITH VALUES ON NEXT PAGE TO DETERMINE APPROXIMATE POLE SIZE.

TITLE: WIND LOAD CALCULATIONS DUE TO POLE SIZE (REVISED 7/[illegible]/[illegible])	CONSTRUCTION STANDARDS MANUAL	
PAGE 21 – 101	City Electric Tallahassee	

Exhibit 8

WOOD POLE LOADING CAPABILITY

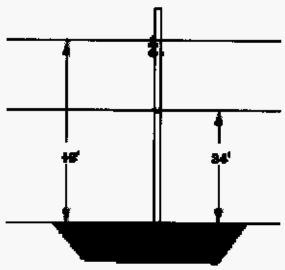
POLE SIZE		ALLOWABLE LOADING IN FOOT-POUNDS AT GROUND LEVEL GRADE C	ALLOWABLE LOADING IN FOOT-POUNDS AT GROUND LEVEL GRADE B
HEIGHT	CLASS		
30	5	31858	22916
35	5	38388	25919
35	4	48140	32940
40	4	63380	38020
40	3	68728	49529
45	3	76578	54672
50	3	83508	59205
55	3	89821	62021
60	3	95202	66203
65	3	99933	67238
70	3	104906	68506
50	2	106616	76277
55	2	114194	80524
60	2	123488	86428
65	2	130740	90410
70	2	137521	93661
70	1	174082	120963

NOTES:

1. THE LOADING VALUES IN THE TABLE ARE NET VALUES, AS THE WIND FORCE ON THE POLE SURFACE HAS BEEN DEDUCTED.
2. SEE NEXT PAGE FOR METHOD OF CALCULATION.
3. LOADING IS BASED ON EXTREME WIND FACTORED AGAINST THE POLE ITSELF WITH NO OVERLOAD FACTOR.

	CONSTRUCTION STANDARDS MANUAL	TITLE: ALLOWABLE POLE LOADING (REVISED 7/[illegible]/[illegible])
	City Electric Tallahassee	PAGE 21 – 102

Exhibit 3



EXAMPLE 1: ONS311-1B FRAMING, 3 #4/0 AAAC PRIMARY, #4/0 AAAC NEUTRAL, SPAN LENGTH OF 210 FT. ON EACH SIDE 60' POLE REQUIRED, GRADE C. CONSTRUCTION

STEP 1: FROM TABLE 1
#4/0 AAAC PRIMARY – 2.0.929 X 210' = 585.27
#4/0 AAAC NEUTRAL – 0.929 X 210' = 195.09

STEP 2:
585.27 X 42' = 24581 FT.– LBS.
195.09 X 34' = 6633 FT.– LBS.

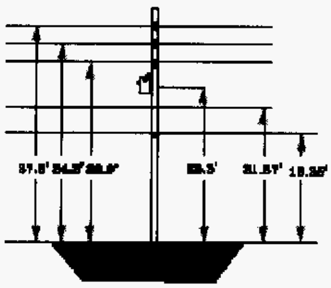
STEP 3: NO EQUIPMENT – 0

STEP 4: 31214 FT.– LBS.

STEP 5: 50'/3 POLE IS ADEQUATE

NOTE: FOR GRADE B CONSTRUCTION, MULTIPLY BY 1.136.

EXAMPLE 2: ONS301-8D FRAMING, #1/0 TPX SECONDARY, SPAN LENGTH OF 250' RIGHT AND 210' LEFT. 50KVA TRANSFORMER. 45' POLE REQUIRED.



STEP 1: FROM TABLE 1
#556 AAAC – 1.418 X 230' = 326 LBS.
#1/0 TPX – 1.591 X 230' = 365.93 LBS.

STEP 2:
326 X 37.5 = 12225 FT.– LBS.
326 X 34.2 = 11138 FT.– LBS.
326 X 30.87 = 10063 FT.– LBS.
326 X 21.87 = 7130 FT.– LBS.
366 X 18.36 = 6711 FT.– LBS.

STEP 3: FROM TABLE II
81 X 26.3 = 2131 FT.– LBS.

STEP 4: 49,398 FT–LBS.

STEP 5: 45'/3 POLE IS ADEQUATE

TITLE: WIND LOADING CALCULATION EXAMPLES (REVISED 7/26/04)	CONSTRUCTION STANDARDS MANUAL	
PAGE 21 – 103	City Electric Tallahassee	

b) Extreme Wind Loading Standards

The City's construction standards, policies, guidelines, practices, and procedures are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the National Electric Safety Code for 1) new construction; 2) major planned work, including expansion, rebuild or relocation of existing facilities; and 3) targeted critical infrastructure facilities and major thoroughfares. There have not been any catastrophic events to date to indicate that stronger design considerations are necessary on the City's electric system.

The City is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association (FMEA).

c) Flooding and Storm Surges

As the City is not a coastal community subject to flooding and storm surges, these types of standards, practices, guidelines, and procedures do not apply to the City's system.

The City is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext.1, or bmoline@publicpower.com.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

All newly designed distribution facilities are placed within either distribution easements or are within the right of way limits on a road. The City discontinued the practice of rear lot construction many years ago. No distribution easements are allowed away from easily accessed areas for new construction. To the extent that alternatives exist for replacing other distribution facilities in a safe and efficiently accessed area, the City would consider all possibilities before leaving existing situations in less than desirable locations.

e) Attachments by Others

The Joint-Use agreements between City and third-party(s) address terms and conditions of pole attachments. Since July 2006, the City has not issued a permit for pole attachment(s) without reviewing both the loading details and clearance details supplied by the joint user. Poles are replaced as the clearances and loading dictates. All loading is reviewed in compliance with the latest edition of the National Electric Safety Code.

4. Facility Inspections

a) The City's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures are as follows:

Pole Inspection Treatment Program – Eight Year cycle

- The City's pole/structure inspection and treatment program was initiated several years ago and has been refined through each inspection cycle. The City's program is defined so that every **eight years** a new pole inspection and treatment cycle is initiated to inspect all the distribution and transmission wood poles and structures on the city's system over a three-year period. Also during these inspections, visual inspections are made of the City's concrete and/or steel structures with any deficiencies needing attention reported. The inspection/treatment program includes all of the following; (i) visual inspection for wood poles less than 10 years old, (ii) sound and bore inspection for poles greater than 10 years old, (iii) internal treatment and fumigant treatment as required, (iv) reinforcement/replacement as required, (v) assessment and evaluation of poles to determine whether they meet the applicable N.E.S.C. strength standard and (vi) record keeping of data for the GIS database. The City has found that this inspection process, used typically throughout the industry, has resulted in high reliability and appropriate maintenance levels at reasonable cost.

Transmission Inspection Program –

- **Five Year cycle.** The City performs a climbing and physical inspection of every transmission structure on its system at least every five years. A plan is developed from these inspections to make all of the necessary repairs and/or refurbishments during periods of the year when load conditions permit the scheduling of line outages (typically fall and spring periods unless it is an emergency repair).

Infrared Inspections/Flying Inspections – Transmission and Distribution Facilities

- Infrared Inspections/Flying Inspections of Facilities - the Electric Utility and Tallahassee Police Department have jointly funded a Forward Looking Infrared Radar (FLIR) system that is utilized from the Leon County Sheriff's Office (LCSO) helicopters. In return for our funding the LCSO provides flight time for transmission and distribution inspections. The transmission system is routinely inspected twice per year. Other aerial inspections of different segments of the distribution and transmission system are performed as needed.

Technical Assessments

- Technical Assessments - after a significant electrical service interruption event has impacted the City of Tallahassee service territory and restoration of the City's customer has been completed, staff initiates technical and service related reviews:
    - Crews are assigned specific circuits and areas to patrol and inspect to make sure that the system facilities are in normal operating condition.
    - Rapid Response Project Management Team (RRPTM) personnel, engineering staff and restoration supervisory staff meet to assess, review and evaluate system performance, strength and areas with problems and prioritize issues/items that need to be addressed and/or improved upon.

Documentation/Record Keeping

- The City's Outage Management System (OMS) tracks all transmission and distribution facilities outages and identifies the causes of these facility interruptions. The interfacing of the OMS and Geographic Information System (GIS) allows OMS to track outages allowing the determination and classification of the cause as overhead or underground.
- GIS contains information concerning the system construction and has the capability for connectivity that will trace from the source point to the end point of service to a specific customer. This aids in assessment of outage causes.

Post Mortem Interruption Reviews

- After every major outage on the City's system, Engineering & Operations Staff conduct a "post mortem" meeting to analyze the cause of the outage, the response to the outage and evaluate any changes or improvements that can be made to the system or the response process. Forensic analysis is utilized on an as-needed basis. The City has been consistently proactive in maintaining and improving the reliability and integrity of its distribution and transmission systems. In addition to the eight-year cycle pole inspection, treatment and replacement program, Infrared Inspection Program, five-year transmission inspection program, we have other ongoing programs such as the following that we perform for reliability purposes:
    - Line Clearance and Vegetation Management Program
    - Distribution, Transmission, and Substation Engineering Designs

- o Distribution System Inspection/ Monitoring/Maintaining
- o Geographic Information System (GIS)/Outage Management System (OMS)
- o Training/Preparation
- o Emergency Operations & Disaster Recovery Planning

b) Describe the number and percentage of transmission and distribution inspections planned and completed.

- **<u>Transmission Poles:</u>**
    - o Wood Poles/Structures in-service FY2005 – FY2007 – 3,006
        - Number treated and inspected during FY2005 and FY2006 - 1,694 (56%)
        - Number treated and inspected during FY2007 – 1,312 (44%)
        - Wood poles/structures inspections during climbing/physical inspections during FY2008 -- 450
        - **Wood poles/structures inspections during climbing/physical inspections during FY2009 – 535**
    - o Next contracted wood pole/structure treatment and inspection program cycle to begin FY2012

- <u>**Distribution Poles**</u>:
    - o Wood Poles/Structures in-service FY2005 – FY2007 – 46,191
        - Number treated and inspected during FY2005 and FY2006 - 43,280 (93%)
        - Number treated and inspected during FY2007 – 2,911 (7%)
    - o Next contracted wood pole/structure treatment and inspection program cycle to begin FY2012

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

- <u>**Transmission Poles**</u>:
    - o Rejected poles replaced – 8 (.0.27% of transmission poles inspected) in FY2007
        - A rejected pole is one found to be deteriorated below the required minimum circumference as defined in the standard industry table for inspection and treated poles specified by the City. Rejected poles typically have weakened due to wood decay, insect, or mechanical/structural damage and age.
        - These poles were replaced with spun concrete poles.
    - o The annual FY2008 climbing inspections identified seven pole/structures that were rejected due to wood decay or other deteriorating conditions such as Woodpecker holes. Those poles were replaced with spun concrete poles.
    - o **The annual FY2009 climbing inspections identified eight pole/structures that were rejected due to wood decay or other deteriorating conditions such as Woodpecker holes. Those poles were replaced with spun concrete poles.**

- **<u>Distribution Poles</u>**:
  - Rejected poles replaced in FY2005 – FY2007 – 275 (0.6% of distribution poles inspected) as identified below:
    - A rejected pole is one found to be deteriorated below the required minimum circumference as defined in the standard industry table for inspection and treated poles specified by the City. Rejected poles typically have been weakened due to wood decay, insect, or mechanical/structural damage and age.
    - The replaced poles are evaluated and assessed to ensure the appropriate class pole is used to meet the City's applicable Construction Standards.
    - Eighty percent of the 275 rejected poles were replaced in FY2005 and FY2006 and the remainder were replaced in FY2007.
    - During FY2008 -- ten distribution poles/structures were rejected and replaced due to physical inspections for wood decay and an assessment of each pole was made to ensure the appropriate class pole was used to meet the applicable construction standards
    - **During FY2009 -- fourteen distribution poles/structures were rejected and replaced due to physical inspections for wood decay and an assessment of each pole was made to ensure the appropriate class pole was used to meet the applicable construction standards**

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

<u>Replaced poles</u> –

- 283 poles (0.6% of all poles inspected) FY 2005 – FY2007

  - All 179 rejected poles sizes from 25' class 7 through 35' class 5 replaced with 35' 5 poles – (63% of all the rejected poles). All the poles in need of replacement are evaluated and assessed to ensure the appropriate class pole used to meet the City's applicable Construction Standards

  - Remaining 104 poles (37% of all the rejected poles):

Pole	Number	Percent of all pole inspected
40'-3	35	0.08 %
40'-4	27	0.06 %
40 –5	3	0.01 %
45'- 0	1	0.00 %
45'-2	1	0.00 %
45'-3	12	0.04 %
45'-4	3	0.01 %
50'-2	1	0.01 %
50'-3	8	0.02 %
55'-3	2	0.01 %
60'-1	1	0.00 %
60'-2	1	0.01 %
60'-3	1	0.00 %

70'-2	3	0.01 %
75'-2	3	0.01 %
80'-2	2	0.01 %

- All poles were determined to be in need or replacement are evaluated and assessed to ensure the appropriate class pole is used to meet the City's applicable Construction Standards

- o During FY2008 -- forty transmission wood poles were replaced due to various construction projects. The wood poles were replaced with a combination of spun concrete and hybrid poles (ranging in size from 75' to 120') in an ongoing effort to continually harden the transmission system. Additionally 425 distribution poles (ranging in size from 40'3 to 65'2) were replaced due to construction projects and an additional 85 distribution poles (ranging in size from 40'3 to 60'2) added to serve new customer load. All these poles were evaluated and assessed to ensure the appropriate class poles were used to meet the City's applicable Construction Standards

- o **During FY2009 – sixty-four transmission wood poles were replaced due to various construction projects. The wood poles were replaced with a combination of spun concrete and hybrid poles (ranging in size from 75' to 120') in an ongoing effort to continually harden the transmission system. Additionally 343 distribution poles (ranging in size from 40'3 to 65'2) were replaced due to construction projects and an additional 255 distribution poles (ranging in size from 40'3 to 60'2) added to serve new customer load. All these poles were evaluated and assessed to ensure the appropriate class poles were used to meet the City's applicable Construction Standards.**

Re-enforcement of Poles – 592 poles (1.2% of all poles inspected)

- o During FY2005 – FY2007 --592 various size poles were re-enforced with a C-truss to extend their useful serviceability.

5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City's design standards exceed the National Electric Safety Code requirements for horizontal clearances to all transmission lines. This typically dictates easement widths that provide for larger clear zones from trees and other structures. The transmission system is managed on a three-year trim cycle with target clearance of twenty (20) feet. City Line Clearance and Vegetation Management Program maintains an eighteen-month trimming cycle of all overhead distribution lines targeting at least four to six feet of line clearance and the removal of hazard trees pursuant to the City Commission's established guidelines. City's vegetation management program also utilizes directional pruning, tree growth regulators and the selective removal of those trees that cannot be maintained in a professional manner. When it is necessary to remove a protected tree for any reason we replace it with a "utility compatible tree". We also regularly remove those dead, diseased, and dying trees that represent the potential for an outage or endanger the public.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

- **Transmission – All transmission Rights of Way and/or easements were mowed during** FY2008 AND **FY2009** and will be mowed annually for the foreseeable future. Those lines that pass through residential areas will be mowed 3-4 times during the growing season in order to reduce customer complaints regarding "overgrown ROWs". The lines running through rural areas were managed with the use of a Jaraff mechanical trimmer in FY2008. Our plan is to prune in FY2011 again utilizing some type Jaraff mechanical trimmer or equivalent. The Jaraff crew skips over locations where the lines pass near or through residential areas because of the appearance of the trees after being mechanically pruned. Those locations are pruned with the use of aerial lifts so that proper pruning cuts can be made leaving a more aesthetically pleasing appearance. However, whether mechanical or by hand, target clearance is twenty feet from the conductors. A broad-spectrum herbicide is applied to the base of all poles, steel structures, guy wires, and cross fences to eliminate the growth of underbrush and vines around the facilities.

- **Distribution – Vegetation around approximately 650 miles of overhead distribution lines was managed** FY2008 and **FY2009**. This represents 2/3 of the total **1,037** overhead line miles on the system that has vegetation exposure. This is based on an eighteen-month trim cycle utilized since 1997 pursuant to City Policy. A target clearance of 4-6 feet based on ANSI A-300 standards is obtained each cycle. All line clearance maintenance work is performed by our contractor under a Firm Price contract, which requires that the entire overhead distribution system shall be completed within the 18 month trim cycle. We are currently working on the eighth trim cycle since this program was initiated. In addition to pruning, all appropriate trees that have the potential to grow into the established clear zone of the lines will be treated with a Tree Growth Regulator. The entire overhead distribution system has been treated four times since 1997 and the treatment continues.

6. Storm Hardening Research

The City of Tallahassee Electric Utility is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

City of Vero Beach

T & D Department

P.O. Box 1389 3455 Airport West Dr.
Vero Beach, FL 32961-1389
Telephone: (772) 978-5400 Fax: (772) 770-2230

Marshall Willis, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Dear Mr. Willis,

Enclosed is the City of Vero Beach System Hardening Report pursuant to rule 25-6.0343, F.A.C. for 2009. I have also enclosed a spreadsheet listing the poles that were replaced. If you have any questions please contact me.

Sincerely,

J. Randall McCamish, P.E.
Director Electric T & D
Email: rmccamish@covb.org

xc: John Lee, Acting Electric Utility Director

City of Vero Beach
System Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

a) City of Vero Beach

b) 3455 Airport Dr. West
P.O. Box 1389
Vero Beach, FL 32961-1389

c) Contact information: Name, title, phone, fax, email
Randall McCamish
Director Electric T & D
Phone: 772-978-5431
Fax: 772-770-2230
Email: rmccamish@covb.org

2) Number of customers served in calendar year 2008

Acounts:

Residential –	28,009
Commercial –	5,436
Industrial –	1
Total	33,446

There are also 468 Outdoor unmetered lighting accounts.

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Vero Beach comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2008, the 2008 NESC applies. The edition of the NESC in effect at the time of the facility's initial construction governs electrical facilities constructed prior to February 1, 2008.

b) Extreme Wind Loading Standards

In 2005 the construction standards, policies, guidelines, practices, and procedures at the City of Vero Beach were revised and as a result are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares. Plans are being made to make any changes necessary based on the 2008 NESC.

The City of Vero Beach is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Vero Beach address the effects of flooding and storm surges on underground distribution facilities and supporting overhead facilities. All facilities are installed a minimum of 8 inches above the roadway and grading is required to prevent erosion.

The City of Vero Beach is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Vero Beach provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. All new facilities are installed on the roadway for easy access. Right-of-ways are maintained to existing overhead back lot lines as much as possible. Overhead back lot lines are replaced by underground lines in high-risk areas. Remote control equipment is also available for hard to reach areas.

e) Attachments by Others

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Vero Beach include written safety, pole reliability, and pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. They use, number, size, elevation of attachment and wind loading are all taken into consideration when determining the strength of the pole.

4. Facility Inspections

a) Policies, guidelines, practice, and procedures for inspecting transmission and distribution lines, poles, and structures.

- The City of Vero Beach has 55 miles of transmission lines that are mostly on road or canal right-of-way. The transmission lines are driven and visually inspected once every 2 to 3 months.

A complete inventory of the electric system was taken in 2009. The results of the inventory showed that the overhead distribution system is made up of approximately 10,600 electric utility poles. The count showed that approximately 2,900 of the poles are owned by AT&T/Bellsouth with the City of Vero Beach owning the rest. The poles are inspected once every 5 years. Plans are to inspect 2,000 to 2500 poles per year. This year all of the AT&T/Bellsouth poles were inspected by an outside firm contracted by

AT&T/Bellsouth. The City of Vero Beach contracts a four-person line crew to inspect and repair or replace anything that doesn't meet current NESC standards including poles and hardware. The crew is given a GIS map printout with instructions to inspect everything in the map area. The condition of the poles and equipment is marked on the map including the estimated life expectancy of the poles not failing inspection. The poles are inspected using the sound and bore method with some excavation. Normally the poles are sounded and bored at ground line unless the pole is over 20 years old or looks weathered, then some excavation around the pole is performed for further inspection. All poles and equipment failing inspection are replaced within two weeks. AT&T/Bellsouth is notified when one of their poles fails inspection and they usually replace them within 90 days.

b) Number and percentage of transmission and distribution inspections planned and completed for 2009.

- The transmission system was inspected 4 times in 2009 with no poles failing inspection. We currently have approximately 700 square concrete, 65 steel, 125-spun concrete, 65 wooden, and 5 round hybrid concrete/steel poles. Any additions or replacements will be either spun concrete or round hybrid poles.

The City of Vero Beach initiated an inspection program of the electric system in September 2006. Prior to this date complete records were not kept. In 2009 approximately 33% (3,500 poles) of the distribution system had been inspected and repairs made. The entire system will be inspected and repairs made within 5 years.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

- There were no transmission pole or structure failures in 2009. Three square concrete poles were found to have a vertical hairline crack at the base in a 2008. An outside contractor inspected the poles and determined that the cracks were not due to wind or load stress but possibly from lightning. All three poles were repaired in 2009.

- 3,500 distribution poles were inspected with 150 failures or 4.3%. There were 140 poles replaced by AT&T/Bellsouth due to ground rot. Ten poles were replaced by the City of Vero Beach, of which 7 were from ground rot, two hit by a vehicle, and one wood pole was found broken.

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

- There were no transmission poles or structure failures in 2009.

- The distribution system had one 50-3 wood pole found broken. It was replaced with a 50-3 wood pole. Eighty-six 40-4 wood poles failed from ground line rot. All were replaced with 40-4 wood poles. Fifty-nine 30-5 wood service poles failed from ground line rot and were replaced with 30-5 wood poles. One 45-IIIA concrete poles was hit by a vehicle and replaced with a 45-IIIA concrete pole. One 40-4 wood pole was hit by a vehicle and replaced with a 40-4 wood pole. One 45-4 wood pole was replaced due to ground line rot and replaced with a 45-IIIA concrete pole. One 40-4 wood pole was found broken and replaced with a 40-4 wood pole. AT&T/Bellsouth replaced 140 of the above listed poles. In every case the same size and type of pole was used to replace the old pole. The remaining ten poles the poles were owned and replaced by the City of Vero Beach and the following criteria were used. Once a pole fails inspection it is replaced with a steel or concrete pole if it can easily be reached by a bucket truck from the road or a parking lot. If it is in a back lot line and cannot be reached easily by a bucket truck a wood pole is used.

5. Vegetation Management

a) The City of Vero Beach has always attempted to maintain a three-year vegetation management cycle. In December 2004 the City adopted the Tree Line USA approach to trimming trees. Now when tree limbs get within 3 feet of the neutral or 5 feet of the primary it is cut back to the trunk or main limb. This usually leaves about a 10 feet clearance after initial trimming. The City has also started topping trees that are in the right-of-way at the customer's request in an effort to help them remove the trees. With this trimming policy the City has been able to maintain proper clearance with two 3-man crews. In 2009 the dispatch center received approximately 10 calls per week from customers requesting tree trimming.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

- The City of Vero Beach has approximately 40 square miles of service territory. This territory is broken down into a grid system of 60 blocks of equal size. The tree crews are given one block to trim at a time and this block is mark off as it is completed. The goal is to complete all 60 blocks every three years. We also have our transmission lines mowed every six months.

6. Storm Hardening Research

The City of Vero Beach is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

POLE OLD	DATE REPLACED	POLE NEW	REASON FOR REPLACEMENT	ADDRESS OF POLE	CVB/BST	POLES TYP	JOB NO.
40' WOOD	10/3/2008	40' WOOD	ROTTEN GROUND LEVEL	US-1 & 1 ST.	CVB	CCA	09-1059
40' WOOD	2/11/2009	40' WOOD	AT&T TRANSFER rotten pole	30 AVE. & 45 ST.	ATT	PENTA	2009-2268B
30'WOOD	2/9/2009	30'WOOD	AT&T TRANSFER rotten pole	4446 28 CT.	ATT	PENTA	2009-2268A
30'WOOD	2/18/2009	30'WOOD	AT&T TRANSFER rotten pole	4250 24 CT.	ATT	PENTA	2009-2366
40' WOOD	2/18/2009	40' WOOD	AT&T TRANSFER rotten pole	41 ST. & 29 AVE.	ATT	PENTA	2009-2361
40' WOOD	2/19/2009	40' WOOD	AT&T TRANSFER rotten pole	4271 25 AVE.	ATT	PENTA	2009-2384
40' WOOD	2/19/2009	40' WOOD	AT&T TRANSFER rotten pole	25 AVE. & 42 PL.	ATT	PENTA	2009-2383
40' WOOD	2/19/2009	40' WOOD	AT&T TRANSFER rotten pole	42 PL. BETWEEN 25 & 26 AVE.	ATT	PENTA	2009-2381
40' WOOD	2/23/2009	40' WOOD	AT&T TRANSFER rotten pole	42PL. S/O 25 AVE.	ATT	PENTA	2099-2403
40' WOOD	2/24/2009	40' WOOD	AT&T TRANSFER rotten pole	42PL & 24 CT.	ATT	PENTA	2009-2419
40' WOOD	3/3/2009	40' WOOD	AT&T TRANSFER rotten pole	4450 26 AVE.	ATT	PENTA	2009-2471
40' WOOD	3/4/2009	40' WOOD	AT&T TRANSFER rotten pole	45 ST. & 25 AVE.	ATT	PENTA	2009-2468
40' WOOD	3/2/2009	40' WOOD	AT&T TRANSFER rotten pole	45 ST. BETWEEN 25 & 26AVE.	ATT	PENTA	2009-2493
45'111A CONC.	2/27/2009	45'WOOD	ROTTEN GROUND LEVEL	SANDPIPER & A-1-A	CVB	CCA	2009-2434
40' WOOD	3/17/2009	40' WOOD	AT&T TRANSFER rotten pole	45ST. BETWEEN 31/32 AVE.	ATT	PENTA	2009-2571
40' WOOD	3/17/2009	40' WOOD	AT&T TRANSFER rotten pole	45ST. & 31 AVE.	ATT	PENTA	2009-2566
40' WOOD	3/20/2009	40' WOOD	AT&T TRANSFER rotten pole	45ST. E/O 32 AVE.	ATT	PENTA	2009-2697
40' WOOD	3/9/2009	40' WOOD	AT&T TRANSFER rotten pole	R/O 4375 23 CT.	ATT	PENTA	2009-2514
40' WOOD	3/23/2009	40' WOOD	AT&T TRANSFER rotten pole	4675 32 AVE.	ATT	PENTA	2009-2655B
30' WOOD	3/23/2009	30' WOOD	AT&T TRANSFER rotten pole	4704 32 AVE.	ATT	PENTA	2009-2655A
40' WOOD	3/23/2009	40' WOOD	AT&T TRANSFER rotten pole	4655 32 AVE.	ATT	PENTA	2009-2659
40' WOOD	3/23/2009	40' WOOD	AT&T TRANSFER rotten pole	4745 32 AVE.	ATT	PENTA	2009-2636B
40' WOOD	3/23/2009	40' WOOD	AT&T TRANSFER rotten pole	4795 32 AVE.	ATT	PENTA	2009-2636A
40' WOOD	3/23/2009	40' WOOD	AT&T TRANSFER rotten pole	4470 31 AVE.	ATT	PENTA	2009-2621
40' WOOD	3/23/2009	40' WOOD	AT&T TRANSFER rotten pole	4835 32 AVE.	ATT	PENTA	2009-2627
30' WOOD	3/23/2009	30' WOOD	AT&T TRANSFER rotten pole	4855 32 AVE.	ATT	PENTA	2009-2626
30' WOOD	3/23/2009	30' WOOD	AT&T TRANSFER rotten pole	4480 44 RD.	ATT	PENTA	2009-2623
40' WOOD	3/27/2009	40' WOOD	AT&T TRANSFER rotten pole	4596 32 AVE.	ATT	PENTA	2009-2666A
30' WOOD	3/27/2009	30' WOOD	AT&T TRANSFER rotten pole	4520 32 AVE.	ATT	PENTA	2009-2666B
30' WOOD	3/27/2009	30' WOOD	AT&T TRANSFER rotten pole	4540 32 AVE.	ATT	PENTA	2009-2666C
30' WOOD	3/27/2009	30' WOOD	AT&T TRANSFER rotten pole	3206 45 ST.	ATT	PENTA	2009-2666D
30' WOOD	3/27/2009	30' WOOD	AT&T TRANSFER rotten pole	2731 45 ST.	ATT	PENTA	2009-2683A
30' WOOD	3/27/2009	30' WOOD	AT&T TRANSFER rotten pole	4486 27 AVE.	ATT	PENTA	2009-2683B
30' WOOD	3/27/2009	30' WOOD	AT&T TRANSFER rotten pole	26 AVE. & 43 ST.	ATT	PENTA	2009-2683C
40' WOOD	3/27/2009	40' WOOD	AT&T TRANSFER rotten pole	4261 26 AVE.	ATT	PENTA	2009-2691A
30' WOOD	3/27/2009	30' WOOD	AT&T TRANSFER rotten pole	4265 26 AVE.	ATT	PENTA	2009-2691B
30' WOOD	3/27/2009	30' WOOD	AT&T TRANSFER rotten pole	4279 26 AVE.	ATT	PENTA	2009-2723
30' WOOD	4/9/2009	30' WOOD	ROTTEN GROUND LEVEL	2345 12 AVE.	CVB	CCA	2009-2802
40' WOOD	4/16/2009	40' WOOD	ROTTEN GROUND LEVEL	2402 BUENA VISTA BLVD.	CVB	CCA	2009-2831
40' WOOD	4/16/2009	40' WOOD	AT&T TRANSFER rotten pole	14 DR. & 20 AVE.	ATT	PENTA	2009-2870A
40' WOOD	4/16/2009	40' WOOD	AT&T TRANSFER rotten pole	14 PL. 7 20 AVE.	ATT	PENTA	2009-2870B
40' WOOD	4/20/2009	40' WOOD	AT&T TRANSFER rotten pole	545 BEACHLAND BLVD.	ATT	PENTA	2009-2903
30' WOOD	4/23/2009	30' WOOD	AT&T TRANSFER rotten pole	656 DAHLIA	ATT	PENTA	2009-2938A
30' WOOD	4/23/2009	30' WOOD	AT&T TRANSFER rotten pole	650 DAHLIA	ATT	PENTA	2009-2938B
30' WOOD	4/24/2009	30' WOOD	AT&T TRANSFER rotten pole	632 DAHLIA	ATT	PENTA	2009-2938C
30' WOOD	5/8/2009	30' WOOD	AT&T TRANSFER rotten pole	525 BANYAN RD.	ATT	PENTA	2009-2987A
30' WOOD	5/7/2009	30' WOOD	AT&T TRANSFER rotten pole	631 ACACIA RD.	ATT	PENTA	2009-2987B
30' WOOD	5/7/2009	30' WOOD	AT&T TRANSFER rotten pole	648 ACACIA RD.	ATT	PENTA	2009-2987C
30' WOOD	4/28/2009	30' WOOD	AT&T TRANSFER rotten pole	475 DATE PALM RD.	ATT	PENTA	2009-2987D

30' WOOD	5/5/2009	30' WOOD	AT&T TRANSFER rotten pole	2328 OCEAN DRIVE	ATT	PENTA	2009-2328B
40' WOOD	5/15/2009	40' WOOD	AT&T TRANSFER rotten pole	4705 32 AVE.	ATT	PENTA	2009-3139
40' WOOD	5/14/2009	40' WOOD	AT&T TRANSFER rotten pole	1345 46 AVE.	ATT	PENTA	2009-3103
30' WOOD	5/12/2009	30' WOOD	AT&T TRANSFER rotten pole	517 ACACIA RD.	ATT	PENTA	2009-0001
30' WOOD	5/18/2009	30' WOOD	AT&T TRANSFER rotten pole	316 EUGENIA RD.	ATT	PENTA	2009-3237
30' WOOD	5/18/2009	30' WOOD	AT&T TRANSFER rotten pole	335 DATE PALM RD.	ATT	PENTA	2009-3238
30' WOOD	6/1/2009	30' WOOD	NEW POLE	1902-1904 4 AVE.	CVB	CCA	2009-3323
30' WOOD	6/2/2009	30' WOOD	AT&T TRANSFER rotten pole	4730 30 AVE.	ATT	PENTA	2009-3200C
30' WOOD	6/2/2009	30' WOOD	AT&T TRANSFER rotten pole	4686 30 AVE.	ATT	PENTA	2009-3200D
30' WOOD	6/2/2009	30' WOOD	AT&T TRANSFER rotten pole	4585 30 AVE.	ATT	PENTA	2009-3200E
40' WOOD	6/2/2009	40' WOOD	AT&T TRANSFER rotten pole	4151 28 AVE.	ATT	PENTA	2009-3200A
40' WOOD	6/3/2009	40' WOOD	AT&T TRANSFER rotten pole	1 POLE N/O 41 ST. & 28 AVE.	ATT	PENTA	2009-3200B
40' WOOD	5/29/2009	40' WOOD	AT&T TRANSFER rotten pole	28 AVE. & 28 CT.	ATT	PENTA	2009-3300
30' WOOD	6/9/2009	30' WOOD	AT&T TRANSFER rotten pole	520 CYPRESS RD.	ATT	PENTA	2009-3438A
30' WOOD	6/9/2009	30' WOOD	AT&T TRANSFER rotten pole	686 DATE PALM RD.	ATT	PENTA	2009-3438B
30' WOOD	6/9/2009	30' WOOD	AT&T TRANSFER rotten pole	651 DATE PALM RD.	ATT	PENTA	2009-3438C
30' WOOD	6/9/2009	30' WOOD	AT&T TRANSFER rotten pole	611 DATE PALM RD.	ATT	PENTA	2009-3438D
30' WOOD	6/9/2009	30' WOOD	AT&T TRANSFER rotten pole	526 FIDDLE WOOD RD.	ATT	PENTA	2009-3438E
30' WOOD	6/11/2009	30' WOOD	AT&T TRANSFER rotten pole	536 FIDDLEWOOD RD.	ATT	PENTA	2009-3438F
30' WOOD	6/12/2009	30' WOOD	AT&T TRANSFER rotten pole	608 CYPRESS RD.	ATT	PENTA	2009-3438G
30' WOOD	6/12/2009	30' WOOD	AT&T TRANSFER rotten pole	551 CYPRESS RD.	ATT	PENTA	2009-3438H
30' WOOD	6/16/2009	30' WOOD	AT&T TRANSFER rotten pole	3526 MOCKINGBIRD LN.	ATT	PENTA	2009-3438
30' WOOD	6/15/2009	30' WOOD	AT&T TRANSFER rotten pole	616 EUGENIA LN.	ATT	PENTA	2009-3490A
40' WOOD	6/15/2009	40' WOOD	AT&T TRANSFER rotten pole	4215 28 CT.	ATT	PENTA	2009-3490B
30' WOOD	4/27/2009	30' WOOD	AT&T TRANSFER rotten pole	530 DAHLIA	ATT	PENTA	2009-2938D
30' WOOD	4/27/2009	30' WOOD	AT&T TRANSFER rotten pole	546 FLAMEVINE	ATT	PENTA	2009-2938E
30' WOOD	6/26/2009	30' WOOD	AT&T TRANSFER rotten pole	640 BOUGANVILLEA LN.	ATT	PENTA	2009-3573B
30' WOOD	6/26/2009	30' WOOD	AT&T TRANSFER rotten pole	625 BOUGANVILLEA LN.	ATT	PENTA	2009-3573A
40' WOOD	7/2/2009	40' WOOD	AT&T TRANSFER rotten pole	2755 BOUGAINVILLA LN..	ATT	PENTA	2009-3711
30' WOOD	7/1/2009	30' WOOD	AT&T TRANSFER rotten pole	650 BOUGANVILLEA LN.	ATT	PENTA	2009-3654A
30' WOOD	6/29/2009	30' WOOD	AT&T TRANSFER rotten pole	4121 SHORELAND DR..	ATT	PENTA	2009-3654B
40' WOOD	7/6/2009	40' WOOD	AT&T TRANSFER rotten pole	2726 51 AVE.	ATT	PENTA	2009-3742C
40' WOOD	7/6/2009	40' WOOD	AT&T TRANSFER rotten pole	2735 51 AVE.	ATT	PENTA	2009-3742D
40' WOOD	7/7/2009	40' WOOD	AT&T TRANSFER rotten pole	2630 51 AVE.	ATT	PENTA	2009-3742A
30' WOOD	7/7/2009	30' WOOD	AT&T TRANSFER rotten pole	716 HOLLY RD.	ATT	PENTA	2009-3742B
30' WOOD	7/9/2009	30' WOOD	AT&T TRANSFER rotten pole	2761 51 AVE.	ATT	PENTA	2009-3766
30' WOOD	7/9/2009	30' WOOD	AT&T TRANSFER rotten pole	703 HOLLY RD.	ATT	PENTA	2009-3789A
30' WOOD	7/10/2009	30' WOOD	AT&T TRANSFER rotten pole	526 GREYTWIG RD.	ATT	PENTA	2009-3789B
30' WOOD	7/13/2009	30' WOOD	AT&T TRANSFER rotten pole	715 GREYTWIG RD.	ATT	PENTA	2009-3830A
30' WOOD	7/14/2009	30' WOOD	AT&T TRANSFER rotten pole	506 BOUGAINVILLA LN.	ATT	PENTA	2009-3830B
30' WOOD	7/16/2009	30' WOOD	AT&T TRANSFER rotten pole	550 BOUGAINVILLA LN.	ATT	PENTA	2009-3830C
30' WOOD	7/17/2009	30' WOOD	AT&T TRANSFER rotten pole	3624 RIO VISTA BLVD.	ATT	PENTA	2009-3830D
40' WOOD	7/17/2009	40' WOOD	AT&T TRANSFER rotten pole	3599 E. INDIAN RIVER DR..	ATT	PENTA	2009-3830E
40' WOOD	7/24/2009	40' WOOD	AT&T TRANSFER rotten pole	766 FIDDLEWOOD	ATT	PENTA	2009-3936
30' WOOD	7/1/2009	30' WOOD	AT&T TRANSFER rotten pole	554 CONN WAY	ATT	PENTA	2009-2001A
30' WOOD	7/2/2009	30' WOOD	AT&T TRANSFER rotten pole	606 CONN WAY	ATT	PENTA	2009-2001B
30' WOOD	7/21/2009	30' WOOD	AT&T TRANSFER rotten pole	E/S OF 635 GARDENIA	ATT	PENTA	2009-3901A
30' WOOD	7/20/2009	30' WOOD	AT&T TRANSFER rotten pole	W/S OF 635 GARDENIA	ATT	PENTA	2009-3901B
40' WOOD	8/14/2009	40' WOOD	AT&T TRANSFER rotten pole	1961 CLUB DR.	ATT	PENTA	2009-4153A
40' WOOD	8/13/2009	40' WOOD	AT&T TRANSFER rotten pole	2021 CLUB DR.	ATT	PENTA	2009-4153B

40' WOOD	8/11/2009	40' WOOD	AT&T TRANSFER rotten pole	1971 CLUB DR.	ATT	PENTA	2009-4153C
40' WOOD	8/11/2009	40' WOOD	AT&T TRANSFER rotten pole	41 ST. & OLD DIXIE HWY.	ATT	PENTA	2009-4148
40' WOOD	8/3/2009	40' WOOD	AT&T TRANSFER rotten pole	EAGLE DR. B/T FLAME & GAY	ATT	PENTA	2009-3993
40' WOOD	8/3/2009	40' WOOD	AT&T TRANSFER rotten pole	EAGLE DR. B/T FLAME & DAHLIA	ATT	PENTA	2009-4069A
40' WOOD	8/4/2009	40' WOOD	AT&T TRANSFER rotten pole	828 FLAMEVINE	ATT	PENTA	2009-4069B
40' WOOD	8/4/2009	40' WOOD	AT&T TRANSFER rotten pole	810 FLAMEVINE	ATT	PENTA	2009-4069C
40' WOOD	8/21/2009	40' WOOD	ROTTEN GROUND LEVEL	11 CT. & 26 ST.	CVB	CCA	2009-4235
40' WOOD	9/9/2009	40' WOOD	AT&T TRANSFER rotten pole	INDIAN RIVER DR. & HOLLEY RD	ATT	PENTA	2009-4481
40' WOOD	9/18/2009	40' WOOD	AT&T TRANSFER rotten pole	2420 53 AVE.	ATT	PENTA	2009-4557
40' WOOD	9/17/2009	40' WOOD	AT&T TRANSFER rotten pole	2630 47 AVE.	ATT	PENTA	2009-4593
40' WOOD	9/14/2009	40' WOOD	AT&T TRANSFER rotten pole	2405 54 AVE.	ATT	PENTA	2009-4555
40' WOOD	9/15/2009	40' WOOD	AT&T TRANSFER rotten pole	2555 50 AVE.	ATT	PENTA	2009-4641
40' WOOD	9/22/2009	40' WOOD	AT&T TRANSFER rotten pole	2250 53 AVE.	ATT	PENTA	2009-4631
40' WOOD	9/22/2009	40' WOOD	AT&T TRANSFER rotten pole	2240 53 AVE.	ATT	PENTA	2009-4636
40' WOOD	9/18/2009	40' WOOD	AT&T TRANSFER rotten pole	2210 53 AVE.	ATT	PENTA	2009-4665
40' WOOD	9/25/2009	40' WOOD	AT&T TRANSFER rotten pole	2166 53 AVE.	ATT	PENTA	2009-4672
40' WOOD	9/25/2009	40' WOOD	AT&T TRANSFER rotten pole	2050 53 AVE.	ATT	PENTA	2009-4682
40' WOOD	9/23/2009	40' WOOD	AT&T TRANSFER rotten pole	3656 44 ST.	ATT	PENTA	2009-4679
40' WOOD	9/28/2010	40' WOOD	AT&T TRANSFER rotten pole	4401 35 AVE.	AT&T	PENTA	2009-4702
40' WOOD	9/28/2010	40' WOOD	AT&T TRANSFER rotten pole	3740 44 ST.	AT&T	PENTA	2009-4699
40' WOOD	9/29/2010	40' WOOD	AT&T TRANSFER rotten pole	4445 38 AVE.	AT&T	PENTA	2009-4711
40' WOOD	9/29/2010	40' WOOD	AT&T TRANSFER rotten pole	3821 44 MANOR	AT&T	PENTA	2009-4717
40' WOOD	10/1/2010	40' WOOD	AT&T TRANSFER rotten pole	38 AVE. & 44 ST N/E	AT&T	PENTA	2010-1013A
40' WOOD	10/1/2010	40' WOOD	AT&T TRANSFER rotten pole	38 AVE. & 44 ST. S/E	AT&T	PENTA	2010-1013B
40' WOOD	10/2/2010	40' WOOD	AT&T TRANSFER rotten pole	38 AVE & 44ST S/O	AT&T	PENTA	2010-1022
40' WOOD	10/5/2009	40' WOOD	AT&T TRANSFER rotten pole	4416 35 AVE.	AT&T	PENTA	2010-1042
40' WOOD	10/6/2009	40' WOOD	AT&T TRANSFER rotten pole	2081 33 AVE.	AT&T	PENTA	2010-1054
40' WOOD	10/7/2009	40' WOOD	AT&T TRANSFER rotten pole	2 POLE W/O US-1 ON 49 ST.	AT&T	PENTA	2010 -1072
40' WOOD	10/12/2009	40' WOOD	AT&T TRANSFER rotten pole	34 DR. & 44 PL.	AT&T	PENTA	2010 -1132
30' WOOD	10/12/2009	30' WOOD	ROTTEN POLE	43 ST. & OLD DIXIE HWY.	CVB	CCA	2010-1121
40' WOOD	10/20/2009	40' WOOD	AT&T TRANSFER rotten pole	34 CT. & 45 ST.	AT&T	PENTA	2010-1219
40' WOOD	10/21/2009	40' WOOD	CAR DAMAGED	41 ST. & OLD DIXIE HWY.	CVB	CCA	2010-1244
45' 111A CONC.	10/19/2009	45' 111A CONC.	CAR DAMAGED	5100 29 CT.	CVB	CONC.	2010-1100
40' WOOD	10/30/2009	40' WOOD	AT&T TRANSFER rotten pole	33 ST. W/O 62 AVE.	AT&T	PENTA	2010-1336
40' WOOD	10/27/2009	40' WOOD	AT&T TRANSFER rotten pole	5200 28 ST.	AT&T	PENTA	2010-1292
40' WOOD	11/12/2009	40' WOOD	ROTTEN POLE	37st. Along canal(66 ave.)	CVB	CCA	2010-1485
40' WOOD	11/3/2009	40' WOOD	AT&T TRANSFER rotten pole	12 AVE. & 28 ST.	AT&T	PENTA	2010-1382
40' WOOD	11/13/2009	40' WOOD	AT&T TRANSFER rotten pole	1690 5 CT.	AT&T	PENTA	2010-1493
40' WOOD	11/12/2009	40' WOOD	AT&T TRANSFER rotten pole	1641 5 CT.	AT&T	PENTA	2010-1488
40' WOOD	11/12/2009	40' WOOD	AT&T TRANSFER rotten pole	1651 5 CT.	AT&T	PENTA	2010-1488b
40' WOOD	11/9/2009	40' WOOD	AT&T TRANSFER rotten pole	6370 33 ST.	AT&T	PENTA	2010-1433
30' WOOD	11/3/2009	30' WOOD	AT&T TRANSFER rotten pole	4335 21 PL.	AT&T	PENTA	2010-1389
30' WOOD	11/13/2009	30' WOOD	AT&T TRANSFER rotten pole	1481 4 CT.	AT&T	PENTA	2010-1501
40' WOOD	11/24/2009	40' WOOD	AT&T TRANSFER rotten pole	1730 5 AVE.	AT&T	PENTA	2010-1600
40' WOOD	12/3/2009	40' WOOD	AT&T TRANSFER rotten pole	917 BEACHLAND BLVD.	AT&T	PENTA	2010-1686
40' WOOD	11/25/2009	40' WOOD	AT&T TRANSFER rotten pole	1205 29 ST.	AT&T	PENTA	2010-1605
50' WOOD	12/6/2009	50' WOOD	BROKEN POLE	24ST. BETWEEN US-1 & 12 AVE.	CVB	CCA	2010-1700
40' WOOD	12/15/2009	40' WOOD	AT&T TRANSFER rotten pole	7060 33 ST.	AT&T	PENTA	2010-1817
40' WOOD	12/15/2009	40' WOOD	AT&T TRANSFER rotten pole	5220 21 ST.	AT&T	PENTA	2010-1700
40' WOOD	12/14/2009	40' WOOD	AT&T TRANSFER rotten pole	6580 33 ST.	AT&T	PENTA	2010-1739

40' WOOD	12/15/2009	40' WOOD	ROTTEN POLE	23 AVE. & 18 ST.	CVB	CCA	2010-1805
40' WOOD	12/31/2009	40' WOOD	AT&T TRANSFER rotten pole	1894 33 AVE.	AT&T	PENTA	2010-1936A
40' WOOD	12/31/2009	40' WOOD	AT&T TRANSFER rotten pole	1878 33 AVE.	AT&T	PENTA	2010-1936B

City of Wauchula
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

a) City of Wauchula

b) 126 S. 7th Avenue, Wauchula, FL 33873

c) Contact information: Ray McClellan, Superintendent of Public Works, 863-773-3535, ray@cityofwauchula.com

2) Number of customers served in calendar year 2009
The count is 2,620 customers.

3) Standards of Construction

a) National Electric Safety Code Compliance

The City of Wauchula does have standards, policies, guidelines, practices, and procedures in place 2009.

b) Extreme Wind Loading Standards

The City of Wauchula follows the NESC standards for extreme wind loading.

c) Flooding and Storm Surges

The City of Wauchula is approximately 60 miles from the Atlantic and Gulf coasts, and therefore is not affected by flooding or storm surges.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

The City of Wauchula has the ability for crews to be able to access distribution facilities on or behind customer's property if work needs to be done.

e) Attachments by Others

The City of Wauchula does not have any standards in place at this time but will examine this issue in 2010.

RECEIVED
MAR 04 2010
Florida Public Service Commission
Division of SSC

4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

The City of Wauchula does a sound and bore inspection.

b) Number and percentage of transmission and distribution inspections planned and completed for 2009.

One –third was completed in 2009 and we will continue to do one-third every year.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

The City of Wauchula has less than 1% failure (out of 1,800 poles). Failure is due to poles rotting at the ground line.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

One of our five transmission poles was replaced in 2009.

5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Wauchula's policy on vegetation management consists of tree trimming and herbicide for vines on a schedule of one-third per year.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

The City of Wauchula's policy on vegetation management consists of tree trimming and herbicide for vines on a schedule of one-third per year.

6. Storm Hardening Research

The City of Wauchula is a member of the Florida Municipal Electric Association (FMEA) which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com

FMEA
FLORIDA MUNICIPAL ELECTRIC ASSOCIATION

Memorandum

February 16, 2010

To: FMEA Members

From: Barry Moline, Executive Director

Subject: Outline of PSC Storm Hardening Report pursuant to Rule 25-6.0343

DEADLINE: March 1, 2010

Attached is an outline the requirements in Rule 25-6.0343, Florida Administrative Code, for your Storm Hardening Report submittal to the PSC by **March 1**. We have included suggested language to use in your responses as you formulate your report. Since we are not as intimately familiar with your electric utility system as you are, this outline should only be used as a guideline. A hard copy of your final report with attachments should be mailed (not emailed) to:

Marshall Willis, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

If you have supporting data and tables attached to your report, PSC staff would like this information on a CD, however, a hard copy is the only form actually required.

If you would like FMEA to review your report before you file it with the PSC, please send it to us before **February 24.** I recommend you do so.

The Public Utility Research Center (PURC) has provided us with a report summarizing their research efforts on storm hardening (research on converting overhead to underground, granular wind study and vegetation management research). FMEA, on your behalf, is a member of the PURC research group so inclusion of this group's research activities is not necessary for your report. In the report outline, we have provided the text you need to include to reference FMEA's (and your) participation in this project.

As you prepare this report, I advise you to include as much information and supporting data as you can to avoid additional data requests from the PSC staff. Think of this report as an update to last year's report.

417 E. College Ave. (32301) • PO Box 10114 • Tallahassee, Florida 32302 • (850) 224-3314 • Fax: (850) 224-2831 • www.publicpower.com

The feedback we received from the PSC regarding last year's reports is: "Tell it like it is." If you have a program, describe it. If you're planning one, describe the status of your plan. If you're still working on your program budget, say so. Provide facts and be straightforward. This will avoid questions later. Overall, the PSC was pleased with last year's reports, but this year should show some progress.

Please provide FMEA with a copy of your final report. You can email me at bmoline@publicpower.com. If you have any questions, call me at 800-993-FMEA(3632), ext. 1, or 850-224-3314, ext. 1.

City of Williston
Storm Hardening Report to the Florida Public Service Commission, Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) **Introduction**

a) City of Williston

b) P. O. Drawer 160, Williston, FL 32696

c) Contact information: C.J. Zimoski, Electric Dept. Division Head.
Mark Schiefer, Project Manager

Phone: (352) 528-3060: Fax: (352) 528-0390

E-mail: Zimoski@willistonfire.org and Schieferm@ci.williston.fl.us

2) **Number of customers served in Calendar year 2008**

1,478

3) **Standards of Construction**

a. National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Williston comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b. Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the City of Williston, meet the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after January 1, 2007; and 3) targeted critical infrastructure facilities and major thoroughfares.

The City of Williston is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

c. Flooding and Storm Surges

Not applicable, the City of Williston is an inland community located 45 miles from a coastal area.

d. Safe and Efficient Access of New and Replacement Distribution Facilities.

All New Electrical Construction and Replacement Distribution Facilities within the City of Williston are constructed along Road Right of Ways or on accessible easements. No construction is allowed on rear lot lines within Residential Subdivisions.

e. Attachments by Others

As a result of employee turnover within the management ranks the City has not established any data on pole reliability, pole loading capacity, or engineering standards and procedures for attachments by others to our distribution poles. We require more time to develop the standards and to obtain the capacity data. The City anticipates needing to outsource this function in the 2010 – 2011 budget year.

4) **Facility Inspections**

a. Policies, guidelines, practices, and procedures for inspecting distribution lines, poles, and structures.

All distribution poles are inspected by a visual and sound inspection on a three (3) year cycle by the City of Williston employees. Since 2007 the City of Williston uses both the bore method and the visual and sound method to inspect the poles.

b. Number and percentage of distribution inspections planned and completed for 2009.

33% of the City of Williston's 1100 poles were inspected in 2007 and another 33% of the poles were inspected in 2008. The remaining 33% of the poles were inspected in 2009 by City's electric crew. This is the three (3) year inspection cycle.

c. Number and percentage of distribution poles failing inspection and the reason for the failure.

In 2009 33% of the 1100 poles were inspected and it was found that .05% or 2 poles were defective.

2 poles were found to have wood decay at or below ground level.

d. Number and percentage of distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

   2 poles, or .05%, that failed inspection were – Class 5 – 40' wood poles. Both were replaced with the same type of pole.

5. Vegetation Management

a. Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-way or easements, and an explanation as to why the City of Williston believes its vegetation management practices are sufficient.

   The City of Williston trims all distribution lines on a three (3) year cycle and attention is given to problem trees during the same cycle. Any problem tree not located within the right-of-way is addressed with the property owner and a solution is agreed upon before corrective actions are taken.

b. Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

   One third (1/3) of the distribution facilities are trimmed every year to obtain a three year cycle.

6. Storm Hardening Research

The City of Williston is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities.

The City of Winter Park Electric Utility
Report to the Florida Public Service Commission Pursuant
to
Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

a) City of Winter Park

b) 401 Park Avenue South, 32789

c) Mark Brown, Electric Utility Specialist
Phone: 407-599-3457
Fax: 407-599-3505
mbrown@cityofwinterpark.org

2) Number of meters served in calendar year 2009

The City of Winter Park served 13941 electric customers as of February 1, 2009

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, guidelines, practices, and procedures at the City of Winter Park comply with the National Electrical Safety Code (ANSI C-2) [NESC]. Electrical facilities constructed after February 1 2007 comply with the 2007 NESC. The electrical facilities constructed prior to February 2007 are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

In January 2008, The City of Winter Park began an ambitious initiative to put its entire distribution system underground. The initial phase was funded with $18 million in bonds to underground 9.3 miles of mainline feeder underground and provide $2.5 million in matching funds for neighborhoods that want to participate in the funding to accelerate the undergrounding within their neighborhood. As of January 2010, the City has completed its first mainline feeder project which has removed overhead facilities and replaced it with 14,800 ft. of underground feeder and 19,455ft of underground distribution. Additionally, one neighborhood has been undergrounded. The City of Winter Park had adopted ordinances that require new residential electric services be installed underground.

The Winter Park electric distribution system was originally designed by Progress Energy Florida (PEF). When the system equipment requires replacement, the failed equipment is replaced with equivalent equipment. In some cases the City will install improved equipment.

For instance, the City routinely replaces PEF installed steel cross arms with fiberglass cross arms. This has been a successful strategy to reduce outages caused by animal contact. In some cases, and consistent with the City's overall plans, the City replaces overhead equipment with underground equipment.

At this time, the City of Winter Park facilities are not designed to meet the extreme loading standards on a system wide basis. The City of Winter Park is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association. We continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in specific areas.

c) Flooding and Storm Surges

The City of Winter Park is not a coastal community and storm surges are not a major concern. Flooding was not a significant problem during the hurricanes of 2004 or Tropical Storm Fay. The City of Winter Park is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Winter Park provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that City's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. The City of Winter Park decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available. One of the goals of the undergrounding projects is to improve accessibility by moving the back-lot line equipment out to the front of the property so that facilities are accessible from the street.

e) Attachments by Others

The City of Winter Park implemented a joint pole use agreement with Brighthouse Networks, Inc. during 2008 which covers the vast majority of the attachments on the City's poles. In addition, the City has attachments with other utilities such as Embarq and AT&T. Discussions with those companies are underway.

4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

The City of Winter Park does not own transmission poles or lines. The City hired an outside contractor (Osmose Utility Services Inc) to complete an inventory of distribution poles owned by the City. The initial inspection was completed in 2007. Wood pole inspections vary, three basic methods are used, and usually in combination, in order to assess the condition of a wood pole. Employees would use a visual inspection and an assessment prior to climbing poles in conjunction with field work, and sounding a pole with a hammer to determine the soundness of a pole. The length of the inspection cycle is being evaluated to determine what is appropriate but it is presently planned not to exceed eight years or 12.5% per year.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2009.

The City of Winter Park does not own transmission poles or lines. The City formally contracted with Osmose Utility Services Inc in June 2008 to begin sound and bore with excavation testing of 1002 or approximately 12.5% of its wooden distribution poles. The inspections were completed by the end of July 2008. WPE employees will continue to use a visual inspection and sounding with a hammer to assess the soundness of a pole prior to climbing in conjunction with field work.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2009 and the reason for the failure.

WPE crews changed out 35 poles (less than one percent) in 2009, the majority of these poles were broken during storms when large tree limbs fell across the lines. Visual inspection of the broken poles showed that more than fifty percent had some percentage of base rot. As a result of the 2008 Osmose Inspection Report, there are 78 non-priority poles that failed inspection because of base rot, or a split at the top of the pole, that remain to be changed out. These pole replacements will be scheduled into the general work load. Combined sum is approximately 1.1 percent of our total number of poles WPE owns.

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2009, including a description of the remediation taken.

The City of Winter Park had contracted with Osmose Utility Services Inc. in 2008 to perform formal sound and bore inspections on 1002 wooden poles, or approximately 12% of our total distribution pole count. Pole damage from decay or insects is treated with chemicals to inhibit decay and discourage insects. On some restorable poles, a metal truss is recommended to reinforce the base of the pole. Replacement poles are pressure treated southern pine, and are class 3, 4, or 5.

5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Winter Park's has employed an outside contractor for vegetation management. They're currently managed by our distribution services provider. The City's program is based on a on approximately a three (3) year trim cycle, which is augmented as needed to maintain clearance between cycles. Dead and hazard trees located outside of right-of-way on private property, which present an imminent threat to power lines or equipment, are reported to the City's Code Enforcement Arborist who has the authority to order the tree trimmed or removed. The City's contract language specifies that all routine trimming shall adhere to the National Arbor Day Foundation standards for Line Clearance and comply with ANSI A300 standards for tree trimming. This program of tree trimming, hazard tree and vine removals, combined with good pruning practices that direct future growth away from lines allows Winter Park Electric Utility to provide safe and reliable electrical service to customers on a day to day basis and reduces the potential for damage during storms. The Winter Park Electric Utility can see evidence of the effectiveness of its vegetation management program by the steady improvements in the SAIDI and MAIFI reliability index. In June 05, the SAIDI was 104.2, in June 09, the SAIDI was 6.02 and the rolling twelve month rolling sum was 54.36. In June 05, the MAIFI was 26.8 and in June 09 was .57.

Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2009.

The City's vegetation management program is planned for a 3 year trimming cycle. The City has a mature, well developed canopy of Oak trees and our crews are trimming approximately 15,800 ft of distribution lines each month. The City believes that the quantity, level, and scope of its vegetation management, along with a recent more efficient redistribution of manpower and equipment, is having a positive effect on production and the reliability indices for the City of Winter Park. The Public Utility Research Center held a vegetation management conference January 26-27, 2009. Through FMEA, The City of Winter Park Electric Utility has a copy of the report and will use the information to continually improve vegetation management practices.

6. Storm Hardening Research

The City of Winter Park Electric Utility is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext.1, or bmoline@publicpower.com.

Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.

Calendar Year 2009

1) Introduction

a) Central Florida Electric Cooperative, Inc.

b) 1124 N Young Blvd.
Chiefland, Florida 32644

c) Contact information:
Ben Dawson
Director of Engineering
(352) 493-2511 Ext. 228

d) Central Florida Electric Cooperative, Inc., is an electric distribution cooperative in north central Florida, serving approximately 36,039 meters as of year-end, 2009. The Cooperative maintains 4,201 miles of overhead distribution line, 250 miles of underground distribution line, and 12 miles of transmission line. Central Florida Electric Cooperative, Inc. serves consumers in Alachua, Dixie, Gilchrist, and Levy Counties. The Cooperative operates 15 distribution substations, purchasing power at 69 kV from Seminole Electric Cooperative, Inc., a statewide cooperative power supplier.

The Cooperative's service territory, located in the "Big Bend" area of Florida, is flanked by the Gulf of Mexico on the west; Tri-County and Clay ECI's to the north and northeast; and Sumter and Withlacoochee ECI's to the south and southeast. The majority of the area is rural, where small farms, multiple dairies, and timberlands are the predominant land usage. There are several relatively urban areas within the service area, along with some "pockets" of residential development.

The service area is bisected by U.S. Highway 19 & 98, which runs from the northwest to the southeast, and by U.S. Highway 27A, which runs west to east.

2) Number of meters served in calendar year 2009:

36,039 connected meters.

3) Standards of Construction:

a) National Electric Safety Code Compliance:

Construction standards, policies, guidelines, practices, and procedures at Central Florida Electric Cooperative, Inc. comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. The edition of the NESC in effect at the time of the facility's initial construction governs electrical facilities constructed prior to February 1, 2007.

b) Extreme Wind Loading Standards:

The wind standard for the Central Florida Electric Cooperative, Inc. facilities is between 100 mph inland and 130 mph at the coast. At this time, Central Florida Electric Cooperative, Inc. facilities are not designed to be guided by the extreme loading standards on a system wide basis. Central Florida Electric Cooperative, Inc. is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Electric Cooperative Association. Though we continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas. At this time we do not have sufficient data to substantiate the effort and cost of making major upgrades to our system. We do look at projects on case by case bases for evaluation for upgrades and hardening.

c) Flooding and Storm Surges:

Central Florida Electric Cooperative, Inc. is in a constant evaluation of our standards, policies, guidelines, practices and procedures that address the effects of flooding and storm surges on underground facilities and supporting overhead facilities. Central Florida Electric Cooperative, Inc. is participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Electric Cooperative Association. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research.

d) Safe and Efficient Access of New and Replacement Distribution Facilities:

Electrical construction standards, policies, guidelines, practices, and procedures at Central Florida Electric Cooperative, Inc. provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front or side of property), all facilities are installed so that Central Florida Electric Cooperative, Inc.'s facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. Central Florida Electric Cooperative, Inc. does not install facilities in the rear of property. Central Florida

Electric Cooperative, Inc. decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

e) Attachments by Others:

Electrical construction standards, policies, guidelines, practices, and procedures at the Central Florida Electric Cooperative, Inc. include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. By pole attachment agreement, we ensure attachments to our poles comply with the above before we approve pole attachment permits.

4. Facility Inspections

a) It is the policy of Central Florida Electric Cooperative, Inc. to inspect all of its transmission facilities, above and at the ground level, with its crews on a yearly basis. These inspections are coordinated to be performed as crews become available when higher priority work is complete. All distribution poles are inspected or repaired at the ground line by contractors or in-house crews within a planned 8-year program. Poles are replaced by Central Florida Electric Cooperative, Inc. crews if found deteriorated beyond repair. Above ground line inspection is performed by Central Florida Electric Cooperative, Inc. crews on a daily basis at they do routine work.

b) Central Florida Electric Cooperative, Inc. planned and inspected all twelve miles of transmission owned in 2009. Central Florida Electric Cooperative, Inc. own crews preformed a ground line inspection and treatment of 7,682 distribution poles in 2009. This was approximately 9.1 % of all distribution poles in the system. Approximately 8,800 poles will be inspected in 2010.

c) The 7,682 distribution poles inspected, 27 were found to be deteriorated and are scheduled for replacement.

5. Vegetation Management

a) Central Florida Electric Cooperative, Inc. is currently 5 years into a 5-year right-of-way vegetation clearance plan. Trees are trimmed or removed within 10 feet of all main lines, taps, and guys. Dead trees, which could fall on the line from outside of our easements, are downed with owner's permission. Vines are removed from poles, guys and lines. In 2009 507 miles of the approximately 2,931 miles of line in the system were cleared.

February 1, 2010

10 FEB -3 AM 10: 03

ECONOMIC REGULATION

Mr. Marshall Willis, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oaks Blvd.
Tallahassee, FL 32399-0850

Re: Report for Rule 25-6.0343, F.A.C.

Attached is Choctawhatchee Electric Cooperative, Inc's (CHELCO) report for Rule 25-6.0343, F.A.C. due March 1, 2010. If you have any questions regarding the information provided in this report, please contact me at (850) 892-5069 Ext. 312.

Regards,

J Matthew Avery

J. Matthew Avery, P.E.
Vice President of Engineering

Cc; Leigh Grantham, Chief Executive Officer, CHELCO
Cc; Donny Fugate, Vice President of Operations, CHELCO
Cc; Michelle Hershel, FECA

Choctawhatchee Electric Cooperative, Inc.

Post Office Box 512
DeFuniak Springs, Florida 32435

Phone 850.892.2111
Toll-Free 800.342.0990
Fax 850.892.9243
Web www.chelco.com

Choctawhatchee Electric Cooperative, Inc.
Report to Florida PSC
Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009
Submitted March 1, 2010

1. Introduction
   - CHELCO – Choctawhatchee Electric Cooperative
   - P.O. Box 512
     1350 West Baldwin Avenue
     DeFuniak Springs, FL 32435
   - Contact: J. Matthew Avery
     Vice President of Engineering
     850-892-5069 Ext. 312
     mavery@chelco.com

2. Number of Meters Served in 2009: 46523
3. Standards of Construction
   a) **National Electrical Safety Code Compliance** - Construction standards, policies, guidelines, practices, and procedures at CHELCO comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.
   b) **Extreme Wind Loading Standards** - Construction standards, policies, guidelines, practices, and procedures at CHELCO are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC. This statement applies to new construction and maintenance work orders.
   c) Electrical construction standards, policies, guidelines, practices, and procedures at CHELCO address the effects of flooding and storm surges on underground distribution facilities and supporting overhead facilities. CHELCO reviews each project on a case by case basis to determine the effects of flooding and storm surge. We make recommendations to the counties that ultimately approve the developments.
   d) Electrical construction standards, policies, guidelines, practices, and procedures at CHELCO provide for placement of new and replacement distribution facilities to facilitate safe and efficient access for installation and

Choctawhatchee Electric Cooperative, Inc.
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Web www.chelco.com

maintenance. New facilities are placed in front or side of the property and all facilities are installed to allow access by CHELCO crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. CHELCO decides on a case-by-case basis whether existing facilities need to be relocated. In 2009, to further harden our system CHELCO replaced three critical wood pole structures with concrete pole structures.

e) The pole attachment agreements between CHELCO and third-party attachers include language which specifies that the attacher, not the cooperative, has the burden of assessing pole strength and safety before they attach to the pole. However, before approving any attachment, CHELCO reviews each proposed attachment to insure each attachment will meet the National Electric Safety Code and CHELCO standards. CHELCO performs follow-up audits to ensure the attachment is properly installed and maintained. We also inspect and physically count every attachment on a 3-year cycle.

4. *Facility Inspections*

a) We inspect new construction of power lines on a monthly basis. Each month work orders are closed and routed to the inspector. Work orders are selected at random and represent all types of construction and an accounting of the total dollars spent. We inspect poles, conductor, equipment, and any attachments made on the poles for NESC requirements and specifications.

   CHELCO also uses an outside contractor for pole inspections. We are on an eight-year cycle to cover all the poles on our system, and have been conducting pole inspections since the 1960's. Currently, our contractor inspects between 5000 and 7500 poles per year.

b) During 2009, we inspected 274 different work orders. This inspection ranged from one span single phase primary lines to complex three phase lines.

c) Our pole inspection contractor inspected 7560 poles or 13.11% out of a system total pole count of 57,663.

d) During 2009, there were 124 poles or 1.6% of the poles inspected that failed inspection.

e) During 2009, all 124 of the poles mentioned above were replaced.

Choctawhatchee Electric Cooperative, Inc.

Post Office Box 512
DeFuniak Springs, Florida 32435

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Toll-Free 800.342.0990
Fax 850.892.9243
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CHELCO

5. Vegetation Management
   a) CHELCO has no Board policy that directly relates to the Right of Way Program. See below for an overview of CHELCO's current program and practices.
   b) CHELCO's current right of way program is designed to cut, mow, or otherwise manage one fifth of its right of way on an annual basis. Our standard of cutting is ten feet on either side of the primary line from ground to sky. In 2009, we performed 500 miles of maintenance cutting on primary line. We work to remove any existing problem trees under the primary line(s); this helps to reduce hot-spotting requirements between cycles. We do not require cutting around service conductors, but only the removal of limbs that are directly touching that may cause a problem before the next cutting cycle. We have an established herbicidal spraying program. All right of way floors are sprayed with a stump treat formula to prevent unwanted re-growth following the maintenance cutting program. We patrol all non-scheduled areas continually for danger trees that could affect a primary line through our service department, construction crews, right of way contractors, Supervisor of System Hardening and calls from consumers.

Choctawhatchee Electric Cooperative, Inc.

Post Office Box 512
DeFuniak Springs, Florida 32435

Phone 850.892.2111
Toll-Free 800.342.0990
Fax 850.892.9243
Web www.chelco.com

Clay Electric Cooperative, Inc.

February 22, 2010

Marshall Willis
Acting Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Dear Mr. Willis:

Enclosed is Clay Electric Cooperative, Inc.'s report to the Florida Public Service Commission as required by Rule 25-6.0343, F.A.C. for the calendar year 2009.

Also enclosed is Clay Electric Cooperative, Inc.'s reliability data for the calendar year 2009. This is a voluntary filing Clay agreed to provide using readily available data. As Clay has stated before we do not have sufficient data to calculate MAIFIe therefore this indices is not furnished.

Should you have any questions about these filings please do not hesitate to contact me.

Sincerely,

Herman Dyal
Director of Engineering

RECEIVED
FEB 25 2010
Florida Public Service Commission
Division of SSC

HD/ra
Cc: Bill Willingham, FECA

A Touchstone Energy® Cooperative

Department of Engineering
Post Office Box 308 Keystone Heights, Florida 32656-0308
FAX (352) 473-1407

Clay Electric Cooperative, Inc.
Outage Data for 2009

1. Table of Outage Events by Cause

Cause Code	Number
Unknown Cause	2073
Tree/Limb-Green	1102
Tree/Limb-Dead	711
Animal	594
Defective Equipment	554
Bad Transformer	427
Consumer Problem	371
Damaged By Man	210
Tree/Limb Sec./Service	131
Wire Down	75
Bad Secondary	65
Car Hit Pole	60
Bad R/W	47
Bad Primary URD	25
Overloaded Equipment	25
Consumer Caused	5

2. Tables of Actual and Adjusted Outage Indices

The tables do not include the MAIFIe indice because Clay does not collect momentary data on its over 2,100 down line reclosures.

a.) Adjusted Outage Indices

Adjusted Outage Indices

Category	2009 Adjusted
SAIDI (Minutes)	175.91
CAIDI (Minutes)	63.57
SAIFI (Events)	2.69
L-bar (Minutes/Outage)	95.73
CEM15 (Cust>5 Events)	15847

*adjusted for events defined by FPSC.

b.) Actual Outage Indices

Category	2009 Actual
SAIDI (Minutes)	207.91
CAIDI (Minutes)	51.89
SAIFI (Events)	4.01
L-bar (Minutes/Outage)	94.60
CEM15 (Cust>5 Events)	36174

W:ENG/oserv/doc/rpt to Florida PSC/Outage data 2009

Clay Electric Cooperative, Inc.
Report to the Florida Public Service Commission
Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1. Introduction

Utility: Clay Electric Cooperative, Inc.
PO Box 308
Keystone Heights, FL 32656

Contact: Herman Dyal, Director of Engineering
Phone: (352) 473-8000 ext. 8220
Fax: (352) 473-1407
Email: hdyal@clayelectric.com

2. Number of meters served:

Approximately 173,000

3. Standards of Construction:

a.) National Electric Safety Code Compliance

Clay's construction standards, policies, guidelines, practices, and procedures comply with the National Electrical Safety Code (ANSI C-2) [NESC]. Electrical facilities constructed on or after February 1, 2007 will be in compliance with the 2007 NESC. Electrical facilities constructed prior to February 1, 2007 are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b.) Extreme Wind Loading Standards

Clay's construction standards, policies, guidelines, practices, and procedures for transmission facilities are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for transmission lines built after adoption of the 2002 NESC. Any transmission lines rebuilt or relocated since adoption of 2002 NESC has also been designed to the extreme wind loading standards.

Clay's construction standards, policies, guidelines, practices, and procedures for distribution facilities are not designed to be guided by the extreme wind loading standards specified by Figure 250-2(d) except as required by rule 250-C. Clay's experiences in the 2004 hurricanes did not indicate a need to go to the extreme wind loading standards. However, Clay is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Electric Cooperative Association (FECA). Though Clay intends to continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas, Clay will consider the results of the PURC research before making any final commitments. At this time Clay does not have sufficient evidence or data to support the cost and effort required to increase our design standards to comply with the extreme wind loading.

c.) Flooding and Storm Surges

Clay is a non-coastal utility; therefore, storm surge is not an issue. Clay does experience minor localized flooding on underground and supporting overhead facilities. Clay continuously evaluates these flood prone areas for possible solutions. Clay is participating through the FECA in the PURC studies on the conversion of overhead electric facilities to underground and the effectiveness of underground facilities in preventing flood damage and outages. Clay will consider the results of this study before making final commitments on system hardening for flooding.

d.) Safe and Efficient Access of New and Replacement Distribution Facilities

Clay's practice since the 70s has been to construct our underground and overhead facilities in subdivisions along lot lines adjacent to public/private roadways to facilitate safe and efficient access for installation, operation, and maintenance. In other locations Clay's policies, guidelines, practices, and procedures provide for placement of new and replacement facilities along roadways or areas readily accessible by our crews and vehicles to ensure efficient and safe operation and maintenance.

e.) Attachments by Others:

The pole attachment agreements between Clay and third-party attaches include language which specifies that the attached, not the cooperative, has the burden of assessing pole strength and safety before they attach to the pole. Clay periodically performs follow-up audits of attachments to ensure the attachment is properly installed. In 2008 Clay performed a complete attachment inspection and count. The results reflect attachments by 11 distinct utilities and over 106,000 attachments. This inspection and count did not assess pole strength and safety, only attachment quantities.

4. Facility Inspections:

<u>Transmission</u>

a.) Clay prior to 2007 was on a ten (10) year ground line pole inspection cycle for all wooden transmission poles. The inspection method used involves the sound and bore technique including excavation at the ground line per RUS guidelines. The next ground line pole inspection for all wooden transmission poles will be in 2014. This will put Clay on an eight (8) year cycle.

In keeping with the 2007 internal review of its ground visual patrol, climbing inspection and helicopter inspections, Clay initiated a complete climbing inspection of every transmission structure in 2008. This climbing inspection will continue on a four (4) year cycle. Offset from the four (4) year climbing inspection cycle will be a two (2) year ground patrol visual inspection cycle. Should a complete ground patrol scheduled inspection coincide with a complete climbing inspection, the ground patrol inspection will be forgone in favor of the complete climbing inspection. The last complete ground patrol visual inspection was in 2006 and this ground patrol inspection was forgone in 2008 in lieu of the complete climbing inspection. The next scheduled climbing inspection will be in 2012 while the next scheduled ground line patrol will be in 2010.

In 2009 Clay rebuilt seven (7) miles of 69 kV transmission line. The existing line consisted of wood poles constructed in 1965. The new line was built with concrete poles meeting the extreme wind loading standards of the NESC. Clay plans to rebuild about 17 miles of 69 kV wood pole transmission in 2010. The replacement line will be concrete poles also meeting the extreme wind loading standards. These projects will remove 445 wood poles from service leaving Clay with only about 1,835 wood poles in service.

During the 2007 review of its ground visual patrol, climbing inspection and helicopter inspections, Clay deemed it necessary to perform helicopter inspections of every structure three times a year. Helicopter inspections are typically performed in April, July and November.

b.) Clay performed three (3) helicopter inspections in 2009. These inspections were undertaken in March, June, and December. A total of 2,336 structures were inspected consisting of 3,291 poles. Attached is a copy of the maintenance log for the inspections.

c.) The helicopter inspections found only three (3) or .09% of the total poles required some form of maintenance.

d.) A visual patrol was done in March, June, and December for three short transmission lines that were not helicopter inspected. No discrepancies were found.

e.) The helicopter inspection identified eight locations where trees endangered the lines. These have been corrected.

<u>Distribution</u>

a.) Clay prior to 2007 was on a ten year ground line inspection cycle for all wooden distribution poles. The inspection program consists of excavation and sound and bore at the ground line according to RUS guidelines as well as a visual inspection of the of the pole for other maintenance items. This inspection cycle covered all distribution poles regardless of treatment type.

Going forward in 2008 Clay has revised the inspection cycle to eight (8) years. A copy of the revised inspection cycle is included on the attached CD. This revised cycle uses a phased-in approach so the next few years will still have some cycle times of ten (10) years while Clay compresses the inspection cycle. By 2010 and 2011 Clay will be predominantly on an eight (8) year cycle.

b.) Clay has an estimated 190,000 wooden distribution poles. In 2009 Clay planned to inspect 25,298 poles or 13.3% of Clay's distribution poles. Clay actually inspected 28,891 poles (15.2%) in 2009.

Pole Inspection Schedule 2009						
Substation	Feeder	Estimated Number of Poles	Year Last Treated	Scheduled Treat Year	Actual Complete Date	Actual Number of Poles
Melrose (ME)	1	1604	1999	2009	**23-Jan-09**	1556
Melrose (ME)	2	413	1999	2009	**08-Jan-09**	434
Melrose (ME)	3	2387	1999	2009	**26-Feb-09**	2546
Melrose (ME)	4	3867	2000	2009	**06-Apr-09**	4451
Bland (BL)	1	1307	2001	2009	**13-Apr-09**	1967
Bland (BL)	2	1790	2001	2009	**18-May-09**	2166
Bland (BL)	3	615	2000	2009	**01-June-09**	872
Bland (BL)	4	1005	2000	2009	**22-Jun-09**	1440
Brooker (BR)	1	1689	2001	2009	**20-Jul-09**	1925
Brooker (BR)	2	1016	2001	2009	**10-Aug-09**	1086
Brooker (BR)	3	4326	2001	2009	**19-Oct-09**	3625
Worthington Springs (WS)	1	2078	2000	2009	**30-Nov-09**	2719
Worthington Springs (WS)	2	173	2000	2009	**27-Oct-09**	122
Worthington Springs (WS)	3	1124	2000	2009	**30-Nov-09**	1710
Worthington Springs (WS)	4	1904	2000	2009	**21-Dec-09**	2362
2009 Estimated Total=		**25,298**	**2009 Actual Total =**			**28,981**

c. Clay inspected 28,981 distribution poles in 2009. A summary of the rejects and reason for failure is listed below.

2009 Pole Inspection Reject Cause Summary		
Description	Quantity	% Total
Ground Rot	158	0.5452%
Holes High	11	.0038
Top Decay	25	.0863
Split	6	.0207
Int Rot	18	.0621
DANGER	4	.0138
Split Top	7	.0242
Total	**229**	**.7902%**

d.) On the attached CD the complete inspection report for each rejection is included. All rejections will be replaced by end of 2nd quarter 2009. Summary grouping by height and class is:

Height	Class	Quantity	Remediation	% Total
25	6	3	Replaced	.13
30	6	36	Replaced	15.72
35	4	3	Replaced	1.31
35	6	114	Replaced	49.78
40	4	22	Replaced	9.61
40	5	14	Replaced	6.11
40	6	24	Replaced	10.48
45	3	1	Replaced	.44
45	4	2	Replaced	.87
45	5	2	Replaced	.87
50	2	2	Replaced	.87
50	3	1	Replaced	.44
50	4	2	Replaced	.87
55	2	1	Replaced	.44
55	3	1	Replaced	.44
65	2	1	Replaced	.44
	Total	**229**		**100.0%**

5. Vegetation Management

Transmission

a.) Clay's vegetation management program for the transmission rights-of-way consists of mowing, herbicide spraying, and systematic recutting. Clay performs all three methods on its entire transmission system. While Clay is doing systematic recutting on our transmission corridor they attempt to remove any danger trees off right-of-way.

Clay's vegetation program has been very effective in keeping Clay's transmission system safe and reliable. During the hurricanes of 2004 Clay sustained no damage to its transmission system from vegetation.

Clay's systematic program for mowing and spraying is on a 3 year cycle while Clay's systematic recutting program is on a 3, 4, or 5 year cycle as needed.

On the attached CD the complete transmission systematic mowing, spraying and recutting schedule is listed under file "Vegetation: Work Plan Schedule Transmission 2007-2011.xls."

b.) In 2009 Clay exceeded its scheduled mowing, spraying and systematic recutting on the transmission system. Clay mowed 75.99 miles of transmission right-of-way in 2009. This exceeded Clay's goal for 2009 by 5%. Clay sprayed 72.49 miles of transmission right of way in 2009, completing the goal for 2009. In 2009 Clay recut 51.17 miles of transmission right-of-way, exceeding the goal for 2009 by 15%. On the attached CD are files describing in detail Clay's mowing, spraying, and recutting program for 2009.

Distribution

a.) Clay owns and operates over 9,000 miles of overhead primary distribution lines. All of our primary lines are under our vegetation management program.

Clay's vegetation management program has been developed taking into account the widely different service areas Clay serves. Presently Clay's vegetation management program consists of a three-year cycle (city), a four-year cycle (urban) and a five-year cycle (rural) for all its distribution primary circuits. The average time for the three cycles is 3.9 years. The reason for the difference in cycle times is simply the difference between re-growth speed and trimming clearance. In the city areas Clay often can not get the full 10' – 12' clearance Clay desires, plus these areas often have more water and fertilizers due to residential sprinkling and fertilizing. At the other extreme in rural areas Clay can often get the full 10' – 12' clearance plus much of the trees in these areas get only rain and not fertilizer. Every distribution primary feeder Clay has is assigned to one of these cycles and a schedule is developed to ensure completion of the cycle. On the attached CD is the complete right-of-way systematic recut plan. Annually after a feeder is recut, Clay's arborist evaluates the clearance obtained and the expected re-growth speed to establish the cycle for the next recut. The next recut could be 3, 4, or 5 years. Therefore, each year Clay's arborist evaluates a feeder's cycle and adjusts the cycle as needed to ensure safe and reliable operation of Clay's feeders.

Clay's Vegetation Management Program is a clear cut right-of-way maintenance program combined with mowing and spraying to provide a safe and reliable distribution system. Clay has approximately 25% of its feeder miles under a three-year cycle, 40% under a four-year cycle, and the remaining 35% is under a five-year cycle.

Clay has a Pre-Cycle Vegetation Maintenance Program consisting of annual inspections of all the distribution feeders for areas that may have the potential to cause an outage before the next cycle year. If Clay finds areas that need to be trimmed to carry the feeder to the next year, these areas will be trimmed on the Pre-Cycle Maintenance Program.

Clay's Dead/Danger Tree Removal Program is with annual inspections of the Pre-Cycle Maintenance Program. Clay also receives requests from members throughout the year for removal of dangerous trees. All of these are field inspected by Clay and action taken as required.

Before Clay begins recutting a feeder, Clay places a bill insert announcing the beginning of recutting in those accounts affected. A copy of the insert is attached.

Clay has a vegetation management webpage on its' web site at <u>www.clayelectric.com</u> that explains Clay's Vegetation management Program in detail for consumers.

Clay also has several publications it produces to educate the public on Clay's right-of-way clearing program. These consist of a Tree Maintenance Notification door hanger as well as a brochure titled "Keeping the Lines Clear". These are given to members when ever a member asks or when Clay needs to cut danger trees or vegetation that is not on an easement of Clay's. Both publications are available on the vegetation management web page. A copy of each is attached.

Clay also produces a guide titled "Landscape Planning" which describes ways to landscape within or near the right-of-way that would be compatible with the right-of-way but yet still provide a safe and beautiful landscape. A copy of the guide is attached.

Clay also has a systematic vegetation mowing and herbicide spraying program of three year cycles each.

Attached is a CD that shows Clay's distribution feeder systematic vegetation maintenance recut, mowing, and spraying schedules and programs.

Clay's Vegetation Management Program addresses all areas of vegetation from landscape planting to danger tree removal. Clay has been following this program diligently for many years now. While tree limbs are still one of Clay's largest outage causes, Clay is confident its vegetation management program is an effective way to provide for a safe and reliable distribution system. Clay strongly feels the 3, 4, or 5 year cycle they have developed and follow is a realistic program to implement. Reducing the cycle times in Clay's opinion without regard to clearance and re-growth would not result in a significantly safer or reliable distribution system.

b.) In 2009 Clay's vegetation mowing program covered 3,228.64 miles of its distribution circuits. This exceeded Clay's goal of 3,008.15 miles. Clay's vegetation spraying program covered 3,071.64 miles of its distribution circuits. This exceeded Clay's goal of 3,008.15 miles. Clay's systematic vegetation recut program covered 2,331.7 miles of its distribution circuits. This exceeded Clay's goal of 2,284.13 miles. There was no carryover from 2008 nor will there be any carry over from 2009 into 2010. Clay's systematic vegetation recut, mowing, and spraying programs for 2009 is recorded in detail on the attached CD.

Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343,F.A.C. Calendar Year 2009

1) Introduction

Escambia River Electric Cooperative is located in Santa Rosa County and serves the Northern parts of Escambia and Santa Rosa Counties. EREC serves approximately 10,001 meters with approximately 1,800 miles of distribution line and no transmission lines or structures. EREC owns all of the distribution, which operates at 12,470 V, and our generation and transmission partner owns all of the transmission and substations that are used to serve our customers.

Contact Information

For additional information contact:
Clay Campbell
GM/CEO
P.O. Box 428
Jay, FL 32565
Phone: 850-675-4521
Email: clay@erec.com

2) Number of meters served in the calendar year 2009

Escambia River Electric Cooperative served 10,001 meters in 2009.

3) Standards of Construction

a. National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at Escambia River Electric Cooperative comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of NESC in effect at the time of the facility's initial construction.

b. Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at Escambia River Electric Cooperative are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006.

c. Flooding and Storm Surges

Escambia River Electric Cooperative is a non-coastal utility, therefore, storm surge is not an issue.

d. Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at Escambia River Electric Cooperative provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that Escambia River Electric Cooperative's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. Escambia River Electric Cooperative decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

e. Attachments by Others

The pole attachment agreements between Escambia River Electric Cooperative and third-party attachers include language which specifies that the attacher, not the cooperative, has the burden of assessing pole strength and safety, as set forth in the NESC, before they attach to the pole. Escambia River Electric Cooperative performs follow-up audits of attachments to ensure the attachment is properly installed, maintained, and meet NESC requirements for pole attachments.

4) Facility Inspections

a. Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including but not limited to, pole inspection cycles and pole selection process.

Escambia River Electric Cooperative inspects each distribution pole on an 8 year cycle using visual, sound and boring techniques in accordance with RUS standards. Additionally, Escambia River Electric Cooperative uses data gathered during outages to proactively identify troubled lines, poles, equipment, and right-of-way. All of the data feeds back to our pole selection process, which provides a method to determine which poles not to purchase.

b. Describe the number and percentage of transmission and distribution inspections planned and completed for 2008.

We planned for 3,840 (12.5%) of distribution poles to be inspected but 4,652 (12.7%) were inspected for the 2009 year. Escambia River Electric Cooperative does not own any transmission poles.

c. Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2008 and the reason for the failure.

We found 17 (0.37%) of the poles inspected failed due to ground level decay. Escambia River Electric Cooperative does not own any transmission poles.

d. Describe the number and percentage of transmission poles and structures and distribution poles, by type and class of structure, replaced or for which remediation was taken after inspection in 2008, including a description of the remediation taken.

All 4 distribution poles were replaced after pole inspection was completed.

Number	Height	Class	Problem	Pole Treatment
1	40	4	Ground Level Decay	CCA
2	35	4	Ground Level Decay	Creosote
3	35	5	Ground Level Decay	Creosote
4	35	5	Ground Level Decay	Penta
5	35	5	Ground Level Decay	Penta
6	30	6	Ground Level Decay	Penta
7	35	5	Ground Level Decay	Unknown
8	30	5	Ground Level Decay	Unknown
9	40	4	Ground Level Decay	Unknown
10	35	5	Ground Level Decay	Unknown
11	35	5	Ground Level Decay	Unknown
12	30	5	Ground Level Decay	Unknown
13	40	4	Ground Level Decay	Unknown
14	30	6	Ground Level Decay	Unknown
15	30	6	Ground Level Decay	Unknown
16	40	5	Ground Level Decay	Unknown
17	30	5	Ground Level Decay	Unknown

5) Vegetation Management

a. **Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.**

Escambia River Electric Cooperative uses a 5-year vegetation management cycle for all distribution lines. The primary reason for this is that the right-of-way is cleared 10 feet on both sides of the lines making a total clearance of 20 feet. While the crews are managing vegetation on a line they look for foreseeable future problems and take care of them at that time. If at anytime there is a problem tree or landscaping, Escambia River Electric Cooperative works with the home owner toward trimming, if possible, or removal, if necessary, while providing restitution if necessary for trees or landscaping that is outside the easement or right-of-ways. In all cases our current policy is providing the necessary vegetation management needed to reduce outages due to vegetation.

b. **Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2009.**

As described in question 5(a), Escambia River Electric Cooperative planned to cut the vegetation on 20% of the distribution power lines. In 2009, we cut the vegetation of approximately 364 miles of power lines, or 20.2 %.

Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2009

1) Introduction

a) **Florida Keys Electric Cooperative Association, Inc.**

b) 91630 Overseas Highway
Tavernier, Florida 33070

c) Scott Newberry
Chief Executive Officer
Phone – (305) 852-2431
Fax – (305) 852-4794
Email – scott.newberry@fkec.com

2) Number of meters served in calendar year 2009

31,157

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at Florida Keys Electric Cooperative Association, Inc., comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facilities initial construction.

b) Extreme Wind Loading Standards

Florida Keys Electric Association, Inc., facilities were not originally designed to the extreme loading standards on a system wide basis. However, Florida Keys Electric Cooperative Association, Inc. adopted the extreme wind loading standard on April 24, 2007 for:

a) New construction
b) Major planned work, including expansion, reconstruction or relocation of existing facilities

c) Flooding or Storm Surges

Florida Keys Electric Cooperative Association, Inc. continues to evaluate and modify our standards, policies, guidelines, practices and procedures that address the effects of flooding and storm surges on underground facilities and supporting overhead facilities. FKEC is participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Electric Cooperative Association.

d) Safe and Efficient Access of New and Replacement Distribution Poles

Electrical construction standards, policies, practices and procedures at Florida Keys Electric Cooperative Association, Inc., provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed, all facilities are installed so that FKEC facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. FKEC decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

e) Attachments by Others

Electrical construction standards, policies, guidelines, practices and procedures at Florida Keys Electric Cooperative Association, Inc., include written safety, pole reliability, pole loading capacity and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. FKEC inspects these attachments on a five year cycle that began in 2007.

4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

Florida Keys Electric Cooperative Association Inc. inspects all transmission structures annually by helicopter. Distribution poles are inspected on a four-year cycle. FKEC began a formal distribution pole inspection and treatment program in 2007. All distribution poles from Plantation Key to approximately mile marker 100 in Key Largo were inspected and treated in 2009 by Osmose Utilities Services, Inc. This inspection represented approximately 25% of our wood distribution poles.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2009.

One hundred percent of FKEC's transmission poles were inspected by helicopter and visually in 2009. Three thousand ninety one (3,091) distribution poles were inspected in 2009, which represents approximately 25% of FKEC's distribution poles.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2009 and the reason for the failure.

Three transmission concrete structure failed inspection in 2009. Temporary repairs were completed. These structures will be replaced or repaired in 2010. All transmission poles or structures are either steel or concrete. Two hundred and sixty-six (266) wood distribution poles failed inspection in 2009. This represents approximately 8.6% of distribution poles tested in 2009. The primary reason for failure was age.

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2009, including a description of the remediation taken.

Three concrete transmission structures failed inspection in 2009. Temporary repairs were completed. These structures will be replaced or repaired in 2010. No transmission poles or structures were replaced in 2009. Sixty-six (66) wood primary distribution poles were replaced and one hundred thirty-one (131) poles were reinforced in 2009. The remaining are mostly secondary, street light and service poles, and are currently being replaced.

5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

Florida Keys Electric Cooperative Association, Inc. inspects and trims, where necessary, the entire transmission system on an annual basis. Substations are inspected annually and trimmed when vegetation encroaches. The remainder of FKEC's distribution system is trimmed on a three-year cycle. A formal trade-a-tree program was implemented in 2007 to help with the removal of problem trees located within the right of way.

b) <u>Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2009.</u>

Annual transmission line right-of-way clearing from mile marker 106 on County Road 905 to the Dade/Monroe County line was completed in the first quarter of 2009. The remainder of the transmission system was spot-trimmed as necessary.

Vegetation surrounding all substations was trimmed prior to June 1, 2009. Approximately 200 circuit miles of distribution lines were trimmed in 2009. Additional distribution spot-trimming was conducted as necessary.

GLADES
Electric Cooperative, Inc.
"Neighbors Working for Neighbors"

February 22, 2010

Florida Public Service Commission
Attn: Timothy Devlin, Director
Division of Economic Regulation
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

RE: Florida Public Service Commission Report

Dear Mr. Devlin:

Attached you will find the report for Glades Electric Cooperative, Inc. as required by Florida Public Service Commission rule 25-6.0343, F.A.C. for the calendar year 2009.

I remain….

Sincerely,

Jody Dotson

Jody Dotson
Power Supply Manager

A Touchstone Energy® Cooperative

P.O. Box 519, Moore Haven, FL 33471 • 863-946-0061 • 800-226-4024 • Fax 863-946-0824 • www.gladesec.com
Lake Placid 800-226-4025 • Fax 863-465-2895 Okeechobee 800-226-4023 • Fax 863-467-0855

Florida Public Service Commission Report
Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

The following information is submitted pursuant to the Florida Public Service Commission rule 25-6.0343, F.A.C. for the calendar year of 2009.

1. **Reporting Utility**

Glades Electric Cooperative, Inc.
P.O. Box 519
1190 U.S. Hwy 27 East
Moore Haven, FL 33471

Submitted by:

Jody Dotson
Power Supply Manager
863-946-6280
863-946-6265
jdotson@gladesec.com

John Eisinger
Engineering Services Manager
863-946-6244
863-946-6265
jeisinger@gladesec.com

2. **Number of meters served in calendar year 2009:** 15,907

3. **Standards of Construction -** Glades Electric Cooperative (GEC) utilizes a Construction Standards Committee that meets on a monthly basis to evaluate construction and material standards currently in place and to make recommendation of change. This committee consists of the Manager of Engineering Services, the Power Supply Manager, Line Superintendents, Purchasing Agent, Supervisor of Staking Engineers, one Lead Lineman, and one Journeyman Lineman.

   a) **National Electric Safety Code Compliance:**

   Construction standards, policies, guidelines, practices, and procedures at Glades Electric Cooperative, Inc. comply with the National Electrical Safety Code (ANSI C-2) [NESC] as set forth by RUS Regulations. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction. RUS regulation is as follows:

RUS Regulation 7 CFR Ch. XVII (1-1-06 Edition), Subpart E – Electric System Design § 1724.50 Compliance with National Electrical Safety Code (NESC).

The provisions of this section apply to all borrower electric system facilities regardless of the source of financing.

(a) A borrower shall ensure that its electric system, including all electric distribution, transmission, and generating facilities, is designed, constructed, operated, and maintained in accordance with all applicable provisions of the most current and accepted criteria of the National Electrical Safety Code (NESC) and all applicable and current electrical and safety requirements of any State or local governmental entity. Copies of the NESC may be obtained from the Institute of Electrical and Electronic Engineers, Inc., 445 Hoes Lane, Piscataway, NJ 08855. This requirement applies to the borrower's electric system regardless of the source of financing.

(b) Any electrical standard requirements established by RUS are in addition to, and not in substitution for or a modification of, the most current and accepted criteria of the NESC and any applicable electrical or safety requirements of any State or local governmental entity.

(c) Overhead distribution circuits shall be constructed with not less than the Grade C strength requirements as described in Section 26, Strength Requirements, of the NESC when subjected to the loads specified in NESC Section 25, Loadings for Grades B and C. Overhead transmission circuits shall be constructed with not less than the Grade B strength requirements as described in NESC Section 26.

b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at Glades Electric Cooperative are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC for:

1. New Construction
2. Major planned work, including expansion, rebuilds, or relocation of existing facilities assigned on or after the effective date of the 2007 NESC edition.
3. Targeted critical infrastructure facilities and major thoroughfares.

c) Flooding and Storm Surges

Glades Electric Cooperative is a non-coastal utility but recognizes the potential for flooding should a catastrophic failure of the Herbert Hoover dike along the Lake Okeechobee southwestern shoreline occur. GEC participated in a workshop series hosted by Florida Catastrophic Planning with such a scenario and has evaluated standards, policies, guidelines, practices and procedures that address the effects of flooding and storm surges on underground facilities and supporting overhead facilities. GEC continues to participate in the

Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of underground facilities in preventing storm damage and outages through the Florida Electric Cooperative Association. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research to justify the effort and cost of converting overhead to underground.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the Glades Electric Cooperative provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that GEC's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. GEC decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

The Glades Electric Cooperative Board of Trustees adopted Right of Way Policy 411 on December 19, 1996 as follows:

POLICY NO. 411

RIGHTS-OF-WAY

I. OBJECTIVE:

To establish policy for procurement of rights-of-way by applicable for service and to provide for the clearing, re-clearing, and maintenance of rights-of-way by the Cooperative.

II. CONTENT:

Rights-of-way are required of landowners for the purpose of providing location of and access to electric distribution lines and other necessary appurtenances for construction, operation, and maintenance.

A. Procurement by Applicants

1. Applicants for service may be required to secure to, and for, the Cooperative all necessary and convenient rights-of-way and to pay the costs of securing same.

2. Applicants for service shall also be responsible for initial clearing of rights-of-way necessary for line extensions for provision of service unless the Cooperative determines that it is in the best interests of the Cooperative to provide said initial clearing.

B. Delays

1. Applications for service for an extension to be constructed where right- of-way is not owned by the Cooperative will only be accepted subject to delays incident to obtaining satisfactory right-of-way, highway and railroad crossing permits, or other permits which may be required.

2. Satisfactory right-of-way clearance for electric lines to the point of delivery of a new service must be accomplished before the service connection will be made.

C. Clearing, Re-clearing, and Maintenance of Rights-of-Way

1. A minimum 20 foot right-of-way is required. Exceptions from this normal range will be made only by special arrangement in consideration of the Cooperative's requirements and conditions affecting the landowner's property.

2. The Cooperative shall have the rights of ingress and egress from the rights of way at reasonable times and as required. The Cooperative shall have the right to cut, trim, chemically treat with herbicide, trees and shrubbery to the extent necessary to keep them clear of the electric lines and meter bases and to cut all dead, weak, and dangerous trees which may endanger the line by falling.

3. The member shall allow the Cooperative to clear and trim trees which will endanger the lines of the Cooperative and imperil service to that member or other members.

4. The member shall refrain from:

a. Planting trees, shrubs, et cetera, in the Cooperative's right-of-way which may at some time in the future endanger the lines.

b. Placing structures on the right-of-way. If the member does place vegetation or structures within the right-of-way, the Cooperative will not be responsible for damages done to same. Members shall gain the approval of the Cooperative before placing fences on the right-of-way. Members may be required to install gates at locations designated by the Cooperative to ensure that access to Cooperative facilities is not inhibited.

c. Planting trees, shrubs, et cetera, around underground transformers.

5. The Cooperative shall use reasonable care and diligence in the clearing, re-clearing, and maintenance of rights-of-way. The Cooperative shall make reasonable attempt to give notice to the landowners of scheduled or planned clearing and re-clearing and alterations within the existing right-of-way.

III. APPLICABILITY:

This policy applies to all members and applicants for service of the Cooperative.

IV. RESPONSIBILITY:

It shall be the responsibility of the General Manager or his/her designee to carry out the provisions of this policy.

Original Policy Dated: 12-19-96

Revised: ____________________

Attest: ______________________
Secretary

e) Attachments by Others

The pole attachment agreements between Glades Electric Cooperative and third-party attachers include language which specifies that the attacher, not the cooperative, has the burden of assessing pole strength and safety before they attach to the pole. In addition to the terms of pole attachment agreements, Glades Electric Cooperative has adopted a policy that places the burden of assessing pole strength and safety to all third party attachers. It is the intent of this policy to ensure all third party attachment agreements are uniform in responsibility assignments. GEC performs system wide attachment inspections on a two year cycle..

4. Facility Inspections

a) Glades Electric Cooperative policies, guidelines, practices and procedures for inspections and maintenance - Glades Electric Cooperative effectively inspects and maintains its transmission and distribution lines, poles, and structures through a number of regulations, procedures, and guidelines. These practices have proven to be invaluable previous storm impacts. Inspection and maintenance work is completed by utilizing GEC's System Restoration

Plan, wood pole inspection cycle as established in RUS bulletin 1730B-121, and GEC's annual Strategic Work Plan. Details of these regulations, procedures, and guidelines are as follows:

i. **Glades Electric Cooperative System Restoration Plan (SRP) -** Glades Electric Cooperative adopted a System Restoration Plan in 1998 to execute effective maintenance and inspection programs on the GEC system. The System Restoration Plan was later developed into procedure during 2005 to ensure that these practices continue. GEC completed System Restoration on all its distribution circuits at the end of the 2007 calendar year. System Restoration continued in 2009 just as it began in 1998. The SRP procedure is as follows:

PROCEDURE BULLETIN NO. 407.2
SYSTEM RESTORATION PLAN

I. OBJECTIVE

To provide a systematic approach for conducting system restoration on the GEC system.

II. CONTENT

A. Scope:

The System Restoration Program (SRP) at Glades Electric Cooperative, Inc. (GEC) is utilized to maintain our Distribution and Transmission Systems as well as Substations. This program includes all elements of system maintenance. The program specifically addresses poles and structures, conductors, grounding, guying and inspection. Additionally the SRP includes testing, maintenance and inspection of substations.

GEC's system is designed to meet or exceed the National Electric Safety Code (NESC).

Safety is our number 1 priority at GEC.

B. Restoration Plan:

The SRP has been developed to ensure that each and every mainline section undergoes system restoration within approximately an 8 year period. Work is divided such that approximately 1/8of the circuits are worked each year. Phase 1 restoration (Mainline) focuses on 3 Ø line sections that are connected directly to the supplying substation. Sections of those circuits that are downstream of three Ø or single Ø line breakers, are considered part of the mainline. Sections of the circuit that are fused, regardless of *the number of phases, are generally considered to be taps, and are covered in Phase 2 of the SRP. Any exceptions regarding the sections of circuits included in each phase will be handled on an individual basis.*

Upon completion of the Phase 1, Phase 2 commences. In Phase 2, all taps, or line sections, that did not undergo system restoration in Phase 1 are completed. Phase 2 is completed within approximately the same time period as Phase 1.
During system restoration, any inactive services are handled per established procedures.

C. Distribution System Restoration Program:
Each year, distribution circuits, or portions of circuits, are earmarked for the SRP. The project is budgeted, manpower is allocated and schedules are established for timely completion.

The program specifically addresses the following:

Poles/structures:
- *Deterioration*
- *Woodpecker holes*
- *Proper grounding*
- *Groundline inspection utilizing excavation and boring*

Guys:
- *Condition*
- *Guy guards*
- *Grounding*
- *Link sticks*
- *Attachments*

Cross Arms:
- *Clearance*
- *Deterioration*
- *Braces*
- *Framing*
- *Bird protection*

Insulators:
- *Damage*
- *Correct voltage*
- *Deterioration/arcing*

Switches/Fused switches:
- *Damage*
- *Deterioration/arcing*
- *Proper operation*
- *Fuse barrel*
- *Correct fuse size*
- *Tagging/numbering*

Surge Arrestors
- *Damage*
- *Deterioration/arcing*
- *Proper grounding*

Transformers:
- *Leaks*
- *PCB's*
- *Deterioration/rusting*
- *Connections*

Capacitors:
- *Leaks*
- *Deterioration/rusting/bulging cans*
- *Blown fuses*
- *Controller Operation*

Right of Way:
- *Encroachments*
- *Accessibility*
- *Vegetation*

Note: Accessibility is addressed annually with major land owners on the system.

Line Breakers (OCB's):
- *Leaks*
- *Deterioration/rusting*
- *Tagging/numbering*

Note: Line breakers are addressed in the Oil Circuit Breaker Change-Out Program. Under this program, each OCR is replaced with a new/rebuilt Oil Circuit Breaker every five (5) years.

Line Regulators:
Leaks
Deterioration/rusting
Grounding
Operation

Note: Line regulators are addressed in the Regulator Maintenance Program. Under this program, each regulator is maintained and tested every four (4) years. These tests are identical to the station regulator program. Additionally, each line regulator is inspected and operationally checked every quarter.

Code Violations:
Any code violations are corrected under the SRP

General Inspection:
During SRP, the selected portions undergoing restoration are given an overall inspection to ensure that the entire system is built utilizing generally accepted utility practices and that no hazards exist.

If any hazards or code violations are found on any part of the system, they are addressed. GEC has established a procedure for addressing hazards to ensure they are eliminated.

D. Transmission System Program:

The transmission system program addresses all elements of the transmission system, and is similar to the Distribution System Restoration Program.

Aerial Inspection:
Each transmission line is aerially inspected annually. Items that are identified during this inspection are classified into two categories. Category 1 consists of those items that must be addressed prior to the next inspection. These items are recorded on the inspection form and assigned to work crews.
Category 2 items are less critical and are recorded on the inspection form for future reference. Items in this category are given special attention during subsequent inspections and are corrected as required.

The Transmission System Restoration Program addresses the following:

Poles/structures:
Deterioration
Ground line inspection

Woodpecker holes
Grounding
Numbering

Guys:
Condition
Guards
Grounding
Attachments

Cross Arms:
Deterioration
Braces
Bird protection

Insulators:
Damage
Deterioration/arcing
Right of Way:
Encroachments
Accessibility
Vegetation

Code Violations:
Any code violations are corrected under the SRP

General Inspection:
During SRP, the transmission lines are given an overall inspection to ensure that the entire system is built utilizing generally accepted utility practices and that no hazards exist.

If any hazards or code violations are found on any part of the system, they are addressed. GEC has established a procedure for addressing hazards to ensure they are eliminated.

E. Substation Program:

Substations are inspected two (2) times per month. One inspection is a visual inspection of the overall facility; the other inspection includes operational checks of certain equipment. Problems encountered or observed in any of these inspections are budgeted, scheduled and corrected. Problems that are deemed critical are corrected immediately.

The program addresses the following:

Pull-off structures:
- *Deterioration/rust*
- *Connections*
- *Grounding*

Insulators:
- *Damage*
- *Deterioration/arcing*
- *Grounding*

Surge arresters:
- *Damage*
- *Deterioration/arcing*
- *Grounding*

High side switches:
- *Damage*
- *Deterioration/arcing*
- *Operation*
- *Grounding*
- *Tagging/numbering*

Circuit switchers:
- *Damage*
- *Deterioration/arcing*
- *Operation*
- *Voltage drop-open/close*
- *Grounding*
- *Tagging/numbering*

Transformers:
- *Leaks/PCB*
- *Deterioration/rusting*
- *Connections*
- *Temperature*
- *Oil level*
- *Cooling*
- *Tank pressure*
- *Nitrogen pressure (cylinder)*
- *Grounding*

Station breakers:
Leaks
Deterioration/rusting
Connections
Oil level
Grounding
Targets
Tagging/numbering
Emergency trip
Operation
Ammeter readings

Metering devices:
Condition
Accuracy

Station Regulators:
Leaks
Deterioration/rusting
Grounding
Operation
Drag hands

Note: Station regulators are addressed in the Substation Maintenance Program. Under this program, each station regulator is maintained and tested every four (4) years. Additionally, each station regulator is inspected twice each month and operationally checked once every month.

Battery/battery charger:
Electrolyte level
Temperature/voltage/current
Condition

In addition to the above, batteries undergo a quarterly maintenance. The following is addressed during this maintenance:
Temperature
Individual cell voltage/electrolyte level
Bank voltage
Ground integrity
Charger operation (float/equalize)
Visual

Relay panels:

Targets
Condition
Alarms

Additional checks include:
Safety concerns
Fire extinguisher
Air Conditioner
Control building lights
Switch numbers
Switch stick
Grounding
Conduit/cable
Station integrity
Eyewash station
Fence
Rock cover
Vegetation
Signage

Code Violations:
Any code violations are corrected under the SRP
General Inspection:
During SRP, substations are given an overall inspection to ensure that the entire station is in good condition and that no hazards exist.

F. Substation- Major Maintenance & Testing Program:

This program is performed on each station every four (4) years and includes the following:

Circuit Switcher:
Power Factor (Doble) test
Clean & re-torque connections
Operational Check
Voltage drop-open/close
Visual Inspection

Transformer:
Power Factor (Doble) test
Clean & re-torque connections
Turns Ratio Test (TTR)

Dielectric Test Oil
*Dissolved Gas Analysis (DGA)**
**Performed annually*
Current Transformer (CT) test
Visual Inspection

Surge Arrestors:
Power Factor (Doble) test
Clean & re-torque connections
Visual Inspection

Bus & Bus Insulators:
Visual Inspection

Circuit Breakers:
Power Factor (Doble) test
Clean & re-torque connections
Current Transformer (CT) test
Timing test
Contact Resistance test (Ductor)
Dielectric Oil test

Circuit Breakers:
Hi-pot test
Operational check
Visual Inspection

Regulators:
Power Factor (Doble) test
Clean & re-torque connections
Dielectric Oil test
Operational check
Visual Inspection

Relays:
Check settings
Test
Clean

If any hazards or code violations are found on any part of the system, they are addressed. GEC has established a procedure for addressing hazards to ensure they are eliminated.

III. APPLICABILITY

This procedure applies to all GEC employees involved with the System Restoration Plan.

IV. RESPONSIBILITY

The General Manager shall be responsible for carrying out the provisions of these procedures through sub-delegation to appropriate GEC personnel.

--End of Procedure--------------------------------------

ii. **Wood Pole Inspection Cycle** – Glades Electric Cooperative utilizes a ten (10) year sound/bore with excavation inspection cycle for all wood poles on the GEC system. This procedure is in compliance with RUS bulletin 1730B-121 which recommends an eight (8) year cycle but allows a three (3) year deviation as set forth in Section 3.4 of the bulletin. These inspections are done in addition to GEC's System Restoration Plan inspections as outlined in the section above. Inspection details are as follows from the RUS bulletin 1730B-121.

Bulletin 1730B-121
Page 3

1. **PURPOSE:** The purpose of this guide bulletin is to furnish information and guidance to Rural Utilities Service (RUS) electric borrowers in establishing or sustaining a continuing program of effective, ongoing pole maintenance. Discussed are methods and procedures for inspecting and maintenance of standing poles and for determining the minimum required groundline circumferences for distribution and transmission poles.

2. **GENERAL DISCUSSION OF POLE DECAY:** Decay of a treated pole is usually a gradual deterioration caused by fungi and other low forms of plant life. Damage by insect attack (termites, ants and wood borers) is usually considered jointly with decay because preservative treatment of wood protects against both fungi and insects. In most cases, the decay of creosote and pentachlorophenol treated poles occurs just below the groundline where conditions of moisture, temperature and air are most favorable for growth of fungi. Decay factors affecting pole life are discussed below.

2.1 **Pole Species:** Of the millions of poles installed on RUS borrowers' systems, about 85 percent are deep sapwood southern pines. Untreated, southern pine sapwood is especially vulnerable to attack by wood destroying fungi, termites, and carpenter ants. In the Gulf States, where temperature and moisture are most favorable for fungi growth and environmentally favored by termites and carpenter ants, pole replacement time of an untreated southern pine pole would be 2 to 3 years. In areas of lower rainfall and average lower temperatures, the time to pole failure for untreated pine would increase to 5 to 10 years.

The bulk of the remaining pole population is classified as the western species, comprised of Douglas-fir, western red cedar, lodgepole pine, and ponderosa pine. The northern pine species, red and jack, are used in relatively small amounts.

Adequate preservative treatment (pole conditioning and preservative penetration and retention) provides relatively good protection of pole sapwood and the underlying heartwood. Heartwood of most species varies widely in decay resistance, and is almost impossible to treat with preservatives. Species resistance to decay are classified as follows:

Durable - Western red cedar.

Moderately Durable - Douglas-fir and most of the pines.

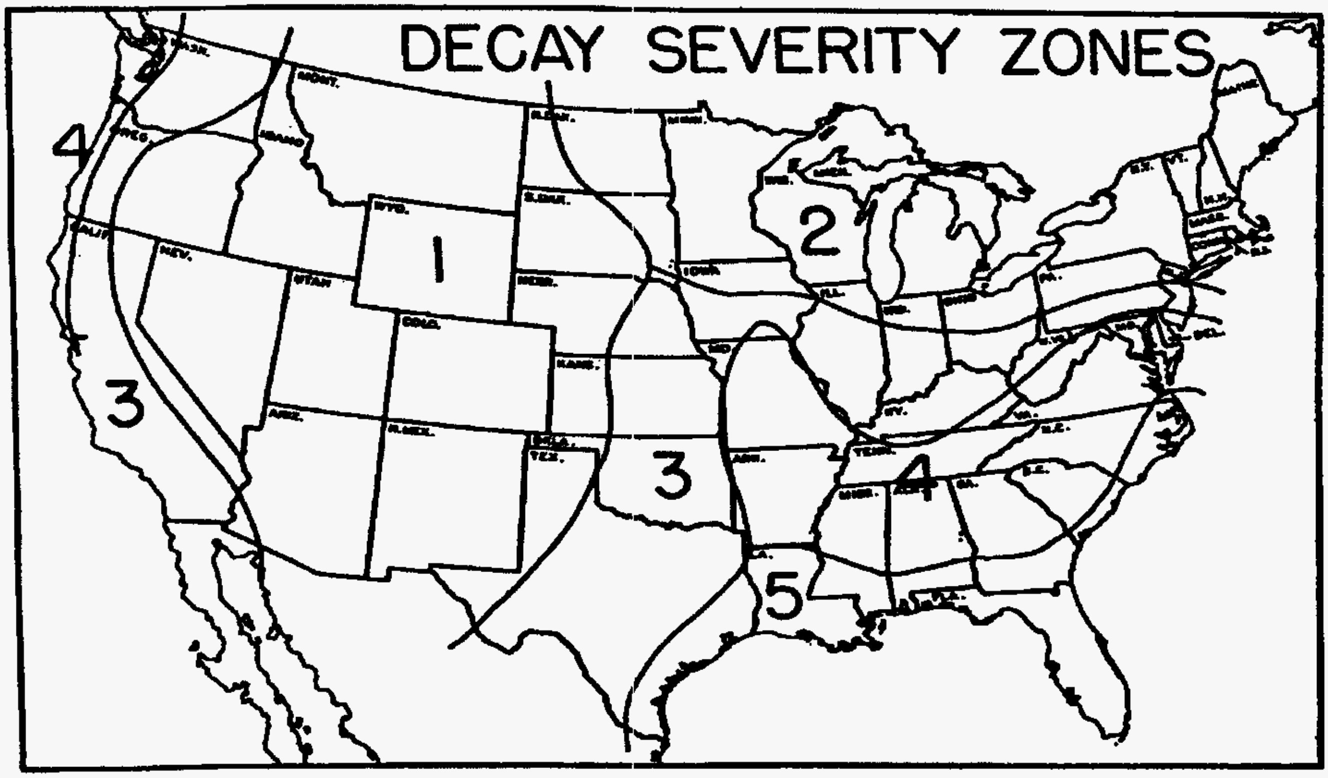
Least Durable - Lodgepole pine. (The use of this species has been limited primarily to the Mountain States areas.)

2.2 <u>Preservative Treatments</u>: There are two general classes of preservative treatment, oilborne (creosote, pentachlorophenol (penta) in petroleum, and Copper Naphthenate) and waterborne (arsenates of copper). Creosote was the only preservative used on rural system poles until 1947, when post-war chemical shortages prompted the introduction of penta and Copper Naphthenate. Both of these preservatives were dissolved in fuel oils from petroleum or mixed with creosote. Today these preservatives are blended with petroleum distillates.

Penta is now the most widely used pole preservative. Where decay problems have occurred, they have not been attributed to any deficiencies of the preservative, but to one or more of the following: (1) loss of solvent carrier due to gravitation and bleeding, (2) poor conditioning of the poles, and (3) loss of dissolved penta to retentions below the effective threshold. To overcome these deficiencies, treatments and quality control have been improved.

Wood preservatives used in waterborne solutions include ammoniacal copper zinc arsenate (ACZA), and chromated copper arsenate (CCA) (types A, B, and C). These preservatives are often employed when cleanliness and paintability of the treated wood are required. Several formulations involving combinations of copper, chromium, and arsenic have shown high resistance to leaching and very good performance in service. Both ACZA and CCA are included in many product specifications for wood building foundations, building poles, utility poles, marine piles, and piles for land and fresh water use. Treatment usually takes place at ambient temperature. During treatment of Douglas-fir, experience has shown that care needs to be taken to ensure that the pole is sterilized.

2.3 <u>Decay Zones</u>: The map on the following page details the five Decay Severity Zones of the United States. These zones were originally based on summer humidity and temperature information and later on a pole performance study conducted by the Rural Electrification Administration (REA). Decay severity ranges from least severe in Zone 1 to most severe in Zone 5. Service life records, individual experience, and/or a planned sample inspection should indicate if the decay hazard for a particular system is typical of the zone in which the system is located.



2.4 **Types of Decay:** After installation, decay organisms may invade the heartwood of poles through the poorly treated sapwood zones, checks, or woodpecker holes. Internal decay may occur in pole tops cut after treatment and in holes bored in the field where supplementary treatment has been neglected. Insufficient amount of preservative or migration of oil-type preservatives are the principal causes of external decay in southern pine poles. Poles in storage can decay because being stacked horizontally can encourage migration of the oil to the low side, depleting oil and preservative from the top side. For this reason, it is recommended that poles in storage be rolled annually to eliminate depletion of preservative from the top side.

Internal decay may be found in southern pine poles that were not properly conditioned or in which penetration or the amount(retention) of preservative is lacking entirely or insufficient. Internal decay of the western species usually involves the heartwood which has been improperly seasoned prior to treatment.

External decay above ground, more commonly known as "shellrot", occurs frequently in butt-treated western red cedars after 12-15 years of service.

Bulletin 1730B-121
Page 6

3. **PLANNED INSPECTION AND MAINTENANCE PROGRAM:** The purpose of a planned inspection program is to reveal and remove danger poles and to identify poles which are in early stages of decay so that corrective action can be taken. The end result of the inspection program is the establishment of a continuing maintenance program for extending the average service life of all poles on the system. The steps in developing a planned pole inspection and maintenance program are outlined below:

3.1 **Spot Checking**: Spot checking is the initial step in developing a planned pole inspection and maintenance program. Spot checking is a method of sampling representative groups of poles on a system to determine the extent of pole decay and to establish priority candidates for the pole maintenance measures of the program. A general recommendation is to inspect a 1,000-pole sample, made up of continuous pole line groupings of 50 to 100 poles in several areas of the system. The sample should be representative of the poles in place. For instance, all the poles on a line circuit or a map section should be inspected as a unit and not just the poles of a certain age group. The inspection of the sample should be complete, consisting of hammer sounding, boring, and excavation as described in Section 4. Field data should be collected on the sample as to age, supplier, extent of decay, etc.

The data should be analyzed to determine the areas having the most severe decay conditions and to establish priorities for a pole-by-pole inspection of the entire system. It may be desirable to take additional samples on other portions or areas of the system to determine if the severity of decay is significantly different to warrant the establishment of an accelerated pole inspection and maintenance program for that portion of the system. The results of the spot check will aid in scheduling a continuous pole inspection and maintenance program at a rate commensurate with the incidence of decay.

3.2 **Scheduling the Inspection and Maintenance Program:** If an ongoing maintenance program is not in place, the suggested timing for initial pole-by-pole inspection and subsequent reinspection is shown in Table 3-1. Supplementary treatment is performed where necessary after the initial inspection.

Decay Zone	Initial Inspection	Subsequent Reinspection	Percent of Total Poles Inspected Each Year
1	12 - 15 Yrs	12 Yrs	8.3%
2 & 3	10 - 12 Yrs	10 Yrs	10.0%
4 & 5	8 - 10 Yrs	8 Yrs	12.5%

Table 3-1 - Recommended Pole Inspection Schedules

The vulnerability of poles to decay is generally proportionate to the decay zone in which they are installed. As a general recommendation, the initial pole-by-pole inspection program should be inaugurated at a yearly rate of 10 percent of the poles on the entire system when the average age of the poles reaches 10 years. If a spot check indicates that decay is advanced in 1 percent of the pole sample, the inspection and maintenance program should be accelerated so that a higher percentage of poles are inspected and treated sooner than the figures shown in Table 3-1. If the decay rate is low for a particular decay zone or area of the system, the pole-by-pole inspection can be adjusted accordingly. Historical inspection data indicates that the ratio between the decaying/serviceable poles to reject poles in the 10-15 year age group is about six or more to one. In a 30-year age group, the ratio was down to about one to one or less. In the latter group, the survivors have more than sufficient residual preservative to protect them indefinitely. The poorly treated poles in the 30-year old group usually have already decayed and been replaced.

The greatest economic benefit from regular inspection is in locating the decaying/serviceable group. Treatment of poles in this group can extend pole life, thereby avoiding the cost of emergency replacement. Inspection and proper maintenance can more than pay dividends by extending the serviceable life of the poles. With the costs of replacing poles rising, the economics of extending the service life become more favorable.

3.3 <u>Setting Up the Program</u>: The pole-by-pole inspection and maintenance work may be done by system employees or by contracting with an organization specializing in this type of work. The choice should be made on the basis of the amount of work to be done, availability, depth of trained people on staff, and a comparison of the costs. Developing the necessary skills in the system's own crews may require considerable time and be contingent upon the availability of an experienced inspector to train system employees. Therefore, qualified contract crews may be preferable for this work in many instances. To be considered qualified, the individual should have inspected, at a minimum, 5,000 poles under a qualified inspector and another 5,000 poles independently, but under close supervision. When the inspection program is underway, the work of the person chosen to inspect should be checked every week or two by the system's representative and the inspector's supervisor. The best way to check an inspector's work is to select at random about 10 poles inspected in the last few weeks, and perform a complete reinspection of the 10 poles. The reinspection should include: re-excavating, removal of paper and treatment, testing for hollow sounds, taking a boring, checking soft surface wood, remeasuring the pole, rechecking the calculations, then retreating and backfilling. If any serious first inspection errors are discovered, all work performed by the inspector between these spot checks should be reinspected.

The pole inspection and maintenance program may result in a large number of replacements. If the reject rate is high, the system's crews may not be able to replace rejected poles in a reasonable time because of other work. The temporary addition of skilled personnel for inspection or pole replacement may be required. It is generally necessary to use at least one crew full time to keep up with the pole inspector. An average pole inspector can check 150-200 poles per week or 800 poles per month. It is desirable to have one person responsible for supervision and coordination.

3.4 Reinspections: Information obtained during the first pole-by-pole inspection can serve as the basis for scheduling subsequent inspections. It is recommended that a reinspection be made every 8 to 12 years as mentioned in Paragraph 3.2, according to the decay zone and severity of decay. These recommendations should be modified by personal experience, but the intervals should not be extended by more than 3 years. It is advisable to recheck some poles which have been groundline treated at intervals sooner than recommended in Paragraph 3.2 to assure field applied treatment is working properly and recommended time intervals for reinspection can be trusted.

4. INSPECTION METHODS: There are varying types of inspection, each with a different level of accuracy and cost. Inspection methods with low accuracy require more frequent reinspection than methods which are detailed and more accurate.

4.1 Visual Inspection: Visual inspection is the easiest and lowest cost method for inspecting poles and has the lowest accuracy. Since most decay is underground or internal, this method will not detect the majority of any existing decay. Obvious data can be collected on each specific structure, such as the above ground relative condition of the pole, crossarm, and hardware. However because this method misses the most crucial part of a true pole inspection and maintenance program, this method is not recommended.

4.2 Sound and Bore: This method involves striking a pole with a hammer from groundline to as high as the inspector can reach and detecting voids by a hollow sound. An experienced inspector can tell a great deal about a pole by listening to the sounds and noticing the feel of the hammer. The hammer rebounds more from a solid pole than when hitting a section that has an internal decay pocket. The internal pocket also causes a sound that is dull compared to the crisp sound of a solid pole section.

Some inspection methods require all poles to be bored, while others require boring only when decay is suspected. Boring is usually done with either an incremental borer or power drill with a 3/8" bit. An experienced inspector will notice a change in resistance against the drill when it contacts decayed wood. The shavings or the borings can be examined to determine the condition of the wood, and the borings can be analyzed for penetration and retention.

When voids are discovered a shell thickness indicator can be used to measure the extent of the voids. This information can be used to estimate the reduction in strength caused by the void, as discussed in Section 8.

The effectiveness of the sound and bore method varies with different species. For southern yellow pine poles, which represent a majority of the poles in North America, decay normally is established first on the outside shell below ground. The decay moves inward and then upward to sections above ground. By the time sound and bore inspection methods can detect internal decay pockets above ground, the pole is likely to have extensive deterioration below ground.

The sound and bore method is more effective with Douglas-fir and western red cedar poles. Decay on these poles is likely to begin internally near the groundline, or in the case of Douglas-fir, above the groundline. Therefore, sounding and boring can identify at least some decay at a stage before the groundline section is severely damaged.

All borings should be plugged with a treated wood plug which is properly sized for the respective hole.

Sound and bore method is recommended for the inspection of Douglas-fir and western red cedar poles but should be used in combination with excavation for southern pine poles.

4.3 <u>Excavation</u>: The effectiveness of the sound and bore inspection is greatly increased when excavation is added to the process. Excavation exposes the most susceptible section of the pole for inspection. For southern yellow pine this is particularly true, since decay begins externally and below ground.

Poles should be excavated to a depth of 18 inches in most locations. Deep excavation may be required in dry climates. After excavation the exposed pole surface should be scraped clean to detect early surface decay. The best results can be obtained by using a triangular scraper.

Shell rot and external decay pockets should be removed from the pole using a specially designed chipper tool. Axes or hatchets should never be used for this application. The remaining pole section should be measured to determine if the pole has sufficient strength with the reduced circumference. Tables 2, 3, and 4 on page 19, assist in determining the effective

After complete inspection and application of preservative treatment, the pole is backfilled by tamping every 6 to 8 inches of dirt at a time until the hole is filled. The backfill should mound up around the pole to allow for future settling and drainage away from the pole.

5. ADDITIONAL INSPECTION TOOLS AND METHODS: Additional equipment and methods are available which can be incorporated into the inspection process.

5.1 Shigometer: The Shigometer uses electrical resistance to detect incipient decay before it can be detected with the human eye or sensed with a drill. During the decay process, negative ions form in the infected wood and cause the electrical resistance to lower. The Shigometer measures electrical resistance and detects incipient decay when there are sudden drops in resistance readings.

The Shigometer employs test leads consisting of a twisted pair of insulated wires with bare metal tips. Both metal tips are slowly inserted into a 7/64" diameter hole bored in the pole. The instrument delivers an electric current pulse through the probes each second. The resistance of the wood tissue is measured between the contact points of the two tips.

By detecting incipient decay, the inspector can decide what further steps of inspection and preservative treatments to take.

5.2 Poletest: Poletest is a sonic instrument developed through research funded by the Electric Power Research Institute. During the development of this instrument, spectral analyses of sound waves that traveled through cross sections at various locations were compared to the actual breaking strength of poles. The end result of the research is a field test device that provides a statistically reliable direct readout of the strength of a pole at a specific cross section.

The intent of the Poletest instrument is to provide a strength assessment for individual poles as opposed to assuming pole designated fiber stresses of the American National Standards Institute (ANSI) 05.1. However, Poletest is not a substitute for traditional inspection because it does not detect decay, especially below ground. Measured strength values can be used to assist in determining when pole replacement is necessary.

5.3 De-K-Tector: The De-K-Tector and other waveform analysis instruments analyze sound wave patterns as they travel through a cross section of a pole. A calibrated mechanical striker impacts the pole and the sound wave or vibration wave caused by the impact is sensed by an accelerometer on the opposite side of the pole.

impact is sensed by an accelerometer on the opposite side of the pole.

The waveform that is detected by the accelerometer is electronically divided into high and low frequency components. Research has shown high frequencies are absorbed more by decayed wood. Therefore, a reading with a low magnitude, high frequency component would indicate a "questionable" pole because decay absorbed some of the high frequency component before the waveform reaches the opposite side of the pole. That pole would need further inspection by traditional methods.

6. RESULTS OF WOOD POLE INSPECTION

6.1 Inspection Results: Inspection results should be used to update pole plant records, evaluate pole conditions, plan future inspection and maintenance action, and provide information for system map revisions. The inspection process will result in identifying the condition of each individual distribution and transmission pole.

In general ANSI C2, "National Electric Safety Code (NESC)," requires that if structure strength deteriorates to the level of the overload factors required at replacement, the structure shall be replaced or rehabilitated. The inspection results should indicate if a pole is "serviceable" or a "reject".

6.1.1 A pole is considered "serviceable" under any of the following conditions:

a. Large portion of completely sound wood exists.
b. Early stages of decay which have not reduced the pole strength below NESC requirements.
c. Pole condition is as stated in (1) or (2) but a defect in equipment may exist, such as a broken ground or loose guy wire. Equipment defects should be subsequently repaired.

6.1.2 Any pole that does not meet the above conditions should be classified as a "reject". Any of the following conditions are characteristics of rejects:

a. Decay, insect or mechanical damage has reduced pole strength at the groundline below NESC requirements.

b. Severe woodpecker hole damage has weakened the pole such that it is considered below NESC requirements.

c. Hazardous conditions exist above ground, such as split top.

6.1.3 Rejected poles may be classified further depending on the severity of the deterioration and whether they are reinforceable:

a. A "reinforceable reject" is any reject which is suitable for restoration of the groundline bending capacity with an industry acceptable method of reinforcement.

b. A "replacement" candidate is a rejected pole which is not suitable for necessary rehabilitation.

c. A "priority reject" is a reject pole that has such severe decay deterioration, it should be removed as soon as possible.

7. REMEDIAL TREATMENT

7.1 The purpose of remedial treatment of a standing pole is to interrupt the degradation by the addition of chemicals, such as pesticides, insecticides and fungicides, thereby extending the useful life of the structure. Treatment may be external groundline treatment or internal treatment.

7.2 **Regulations and Licensing:** Most states require applicators or job supervisors to obtain a pesticide applicator license. Testing for this license includes a "basic skills test" to show knowledge of the rules and regulations governing pesticides. Some states also give a "category test" which is specific to wood poles and wood preservation.

The uses of pesticides are classified by the United States Environmental Protection Agency (EPA) as either "general" or "restricted". A "general use" pesticide is not likely to harm humans or the environment when used as directed on the label. These pesticides may be purchased and applied without a pesticide applicator license. However, a manufacturer may choose not to make a product available for purchase by the general public.

A "restricted use" pesticide could cause human injury or environmental damage unless it is applied by competent personnel (certified applicators) who have shown their ability to use these pesticides safely and effectively. These wood preservatives can only be purchased and applied by someone who has a pesticide applicator license or whose immediate supervisor has a pesticide applicator license.

7.3 **Groundline Treatment:** All treated poles eventually lose resistance to decay, and groundline treatment provides an economical extension of their useful life. Experience has shown that groundline decay can be postponed almost indefinitely in cases where periodic inspection and maintenance programs are in effect. Groundline treatment is recommended under the following conditions:

a. Whenever a pole is excavated during an inspection, and the pole is sound or decay is not so far advanced that the pole has to be replaced or repaired,

b. Whenever a pole over 5 years old is reset, or

c. Whenever a used pole is installed as a replacement.

The two general types of external preservatives used for groundline treatment are either waterborne or oilborne. The fungitoxic components of waterborne preservatives are water soluble while the oilborne preservatives carry oil soluble fungicides. There are formulations that contain both waterborne and oilborne solutions.

Sodium fluoride is the most commonly used water soluble active ingredient in remedial treatments. Historically, oilborne preservatives have included creosote and pentachlorophenol. However, use of penta in supplemental preservatives appears to be declining. In recent years, Copper Naphthenate has been used in external preservative pastes. Boron has also been introduced as an ingredient in a groundline paste.

Before application of external preservatives, decayed wood should be stripped from the pole and removed from the excavation. The preservative paste or grease is most commonly brushed onto the pole. A polyethylene backed paper is then wrapped around the treatment and stapled to the pole. The paper helps to facilitate the migration of the preservative into the critical outer shell.

7.4 <u>Internal Treatment</u>: The three basic types of preservatives used for internal treatment are liquids, fumigants, and solids.

7.4.1 <u>Liquid Internal Preservative</u>: Liquid internal preservatives should be applied by pressurized injection through a series of borings that lead to internal decay pockets or voids. Adequately saturating the pocket and surrounding wood should arrest existing decay or insect attack and prevent further degradation for an extended time.

Liquid internal preservatives contain water soluble or oil soluble active ingredients. Sodium fluoride is the principle active ingredient in the water based formulations. Moisture that is present in the pole will help facilitate diffusion of the active ingredients into the wood beyond a decay pocket.

Oil based internal preservatives most often incorporate Copper Naphthenate as an active ingredient with fuel oil or mineral spirits as the solvents. Since Copper Naphthenate is not soluble in water, it is likely to migrate into the surrounding wood only as far as the oil will travel.

7.4.2 Fumigants: Most of the fumigants in use for wood poles today were originally developed for agricultural purposes. Applying fumigants to soil will effectively sterilize the ground. Due to high levels of microorganisms and chemical activity in soil, the fumigants will degrade fairly rapidly and dissipate so that new crops can be planted in a short time.

These same fumigants do not degrade rapidly in wood and will remain affixed to sound wood cell structure for many years. Fumigants have also been found to migrate longitudinally in wood, several feet away from the point of application. This helps control decay in a large section of the pole. When the vapors migrate into a decay void, however, they may dissipate through associated checks and cracks. This reduces the long term effectiveness and requires more frequent application.

Registered pole fumigants include Sodium N-methyldithiocarbamate (NaMDC), Methylisothiocyanate (MITC), Chloropicrin and Vorlex. Vorlex has not yet been commercially used for utility poles, since it requires a closed application system. Chloropicrin is a very effective wood fumigant. However, the liquid has to be applied from pressurized cylinders, and the applicator has to wear a full-face air respirator.

NaMDC and MITC are the most widely used wood pole fumigants. NaMDC is soluble in water to a maximum amount of 32.7 percent. Treatment holes drilled in a wood pole are filled with the aqueous solution so the appropriate dosage is applied. Recommended dosages vary according to pole size. The NaMDC solution decomposes and generates MITC as the main fungitoxic ingredient. The maximum theoretical amount of resultant MITC at ideal conditions is 18.5 percent by weight. The MITC vapors then migrate up and down the pole to help control decay.

Pure MITC is a solid below 94°F and contains 97 percent active ingredient. Solid MITC sublimes directly into fumigant vapors. Avoiding the liquid stage helps to minimize loss of fumigant during application through checks and cracks. MITC is packaged in vials to facilitate installation. Just before placing the vial into a treatment hole, the cap is removed. As with any fumigant, application holes should be plugged with pressure treated plugs.

7.4.3 Solids: Currently, one solid preservative, a boron rod, is available in North America as a supplemental preservative treatment for wood poles. However, the American Wood Preservers' Association (AWPA) Standards do not include borates for ground contact applications like utility poles. Research and development continues in evaluating formulations of borates with other compounds.

7.5 **Woodpecker Damage:** Woodpecker damage is another problem that requires attention. Many methods have been used in attempts to prevent such damage, but nothing has been entirely successful.

It appears that a woodpecker selects a pole only by chance, and that the first hole invites further attack by other woodpeckers. For these reasons, it is good maintenance practice to seal up the smaller holes. Various materials are available for plugging the holes, and a wire mesh can be used to cover the plugged hole as well as large areas of a pole.

8. DETERMINING THE SERVICEABILITY OF DECAYED POLES

8.1 The decision to treat or replace a decayed pole depends upon the remaining strength or serviceability of the pole. The permissible reduced circumference of a pole is a good measure of serviceability. The following procedure may be used to assist in determining if a pole should be replaced or reinforced.

8.2 **Decay Classifications**. Decay at the groundline should be classified as:

a. General external decay,
b. External pocket,
c. Hollow heart, or
d. Enclosed pocket.

8.3 **Permissible Reduced Circumference Safety Factors**. Wood pole lines are designed using designated fiber strengths and loads multiplied by an overload capacity factor (OCF). For tangent structures the NESC prescribes an OCF "when installed" (new) for Grade B construction (transmission lines) of 4.0 and requires replacement or rehabilitation if the OCF reaches below 2.67. For Grade C construction (usual distribution line grade of construction) the "when installed" OCF is 2.67 and replacement or rehabilitated OCF is 1.33.

Using Tables 1 through 4, on pages 17 and 19 of this bulletin, will give assistance in determining when replacement or rehabilitation is necessary. If the reduced circumference indicates a pole at or below the "at replacement" OCF, the pole should be replaced, splinted, stubbed immediately, or otherwise rehabilitated. Appendix A, of this bulletin, shows the typical pole stubbing detail for distribution poles. Poles are successfully rehabilitated using steel channels, fiberglass reinforcing and epoxy.

8.4 General Procedures For Using Tables 1, 2, 3 and 4:

8.4.1 General External Decay. After removing all decayed wood, measure the circumference above and below the decayed section to determine the original circumference. Then measure the reduced circumference at the decayed section. If the line is built to Grade B construction (transmission), enter the original circumference in the OCF 4.0 column of Table 1. Move right across from the original circumference column of Table 1 until you find the reduced circumference. Once you find the reduced circumference, read the OCF at the top of the column in which your reduced circumference ended. If this OCF meets or exceeds the 2.67 OCF column, replacement is not necessary. However, poles with values close to the minimum should be monitored frequently to ensure that the pole's OCF does not fall below the minimum.

For Grade C construction (usually distribution) enter Table 1 using the original circumference in column 4, OCF 2.67. These poles have to stay above the values of the OCF 1.33 column.

8.4.2 External Pockets. Remove decayed wood and make measurements of the depth and width of the pocket. Measure the pole for the original circumference. Refer to Table 2 to determine the circumference reduction. Enter Table 1 with the original circumference and the reduced circumference to determine the current OCF.

8.4.3 Hollow Heart (Heart Rot). If hollow heart is found, determine the shell thickness and measure the original circumference of the pole. Refer to Table 3 to determine the circumference reduction. Enter Table 1 with the original circumference and the reduced circumference to determine the current OCF.

To determine the shell thickness, bore three holes (preferably of 1/4- or 3/8-inch diameter), 120° apart; measure the shell thickness at each hole, and average the measurements. After shell thickness is determined, treat and plug holes with tightly fitting cylindrical wood plugs that have been treated with preservative. No transmission pole should remain in service with a shell thickness less than 3 inches.

8.4.4 Enclosed Pocket. An enclosed pocket is an off-center void as shown in Table 4, and its diameter should be measured by boring holes as described in section 8.4.3. Using the minimum thickness of the shell, refer to Table 4 for the reduction in circumference. Measure the original circumference. Enter Table 1 with the original circumference and the reduced circumference and determine the current OCF.

Table 1
Pole Circumference Overload Capacity Factors (OCF)

Original circumference (inches)	Reduced circumference (inches)						
OCF 4.0	OCF 3.5	OCF 3.0	OCF 2.67	OCF 2.5	OCF 2.0	OCF 1.5	OCF 1.33
30.0	28.7	27.3	26.1	25.6	23.8	21.6	20.7
31.0	29.7	28.2	27.0	26.5	24.6	22.3	21.4
32.0	30.6	29.1	27.8	27.4	25.4	23.0	22.1
33.0	31.6	30.0	28.7	28.3	26.2	23.8	22.8
34.0	32.5	30.9	29.6	29.1	27.0	24.5	23.5
35.0	33.5	31.8	30.5	29.9	27.8	25.2	24.2
36.0	34.4	32.7	31.4	30.8	28.6	25.9	24.9
37.0	35.4	33.6	32.3	31.6	29.4	26.6	25.6
38.0	36.3	34.5	33.1	32.5	30.2	27.4	26.3
39.0	37.3	35.4	34.0	33.3	31.0	28.1	27.0
40.0	38.3	36.3	34.9	34.2	31.8	28.8	27.7
41.0	39.2	37.3	35.8	35.1	32.5	29.5	28.4
42.0	40.2	38.2	36.7	35.9	33.3	30.2	29.0
43.0	41.1	39.1	37.5	36.8	34.1	31.0	29.7
44.0	42.1	40.0	38.4	37.6	34.9	31.7	30.4
45.0	43.0	40.9	39.3	38.5	35.7	32.4	31.1
46.0	44.0	41.8	40.2	39.3	36.5	33.1	31.8
47.0	45.0	42.7	41.0	40.2	37.3	33.8	32.5
48.0	45.9	43.6	41.9	41.0	38.1	34.6	33.2
49.0	46.9	44.5	42.8	41.9	38.9	35.3	33.9
50.0	47.8	45.4	43.6	42.7	39.7	36.0	34.6
51.0	48.8	46.3	44.5	43.6	40.5	36.7	35.3
52.0	49.7	47.2	45.4	44.5	41.3	37.4	36.0
53.0	50.7	48.2	46.3	45.3	42.1	38.2	36.7
54.0	51.6	49.1	47.1	46.2	42.9	38.9	37.4
55.0	52.6	50.0	48.0	47.0	43.7	39.6	38.1
56.0	53.6	50.9	48.9	47.9	44.4	40.3	38.7
57.0	54.5	51.8	49.8	48.7	45.2	41.0	39.4
58.0	55.5	52.7	50.6	49.6	46.0	41.8	40.1
59.0	56.4	53.6	51.5	50.4	46.8	42.5	40.8
60.0	57.4	54.5	52.4	51.3	47.6	43.2	41.5

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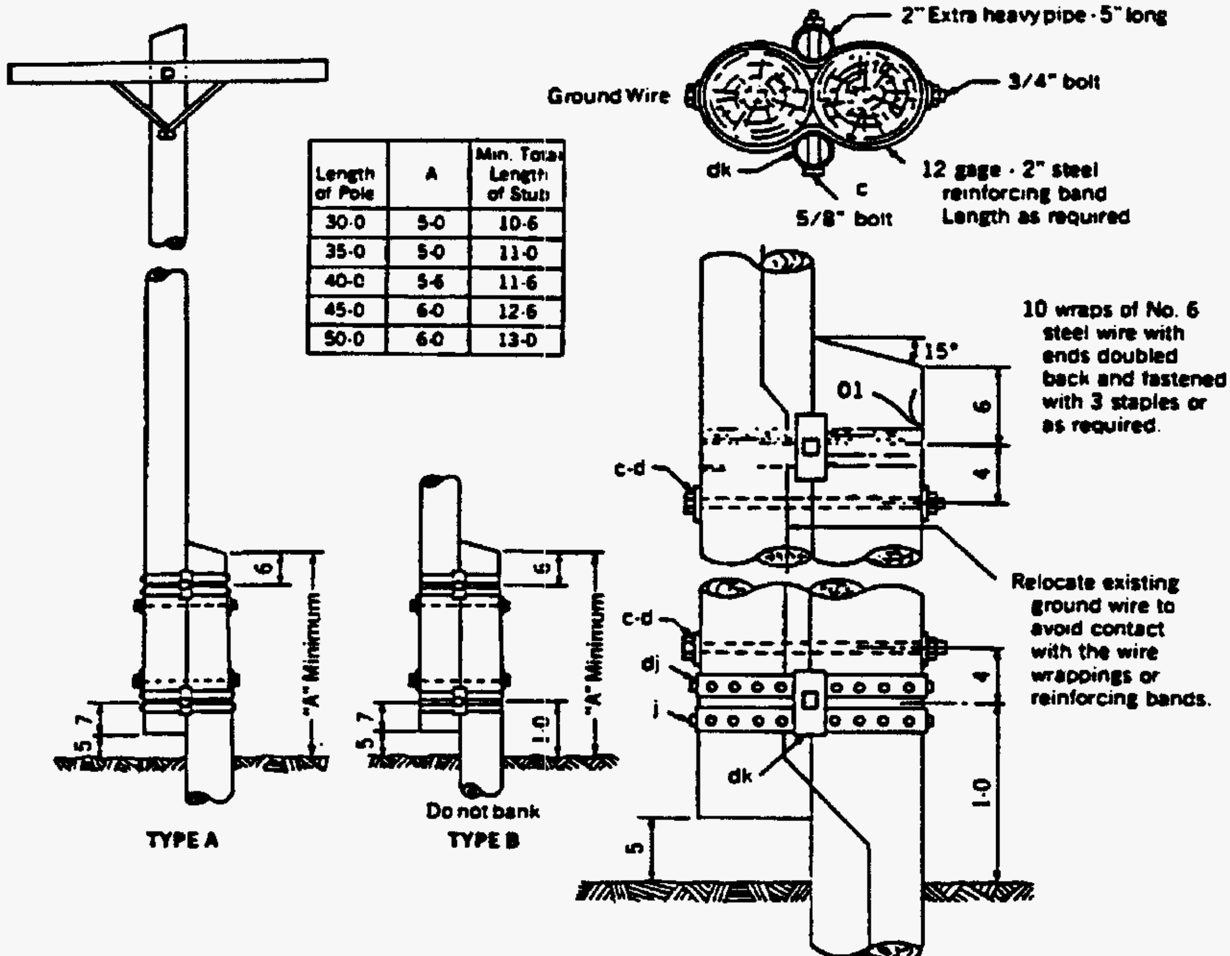


Length of Pole	A	Min. Total Length of Stub
30-0	5-0	10-6
35-0	5-0	11-0
40-0	5-6	11-6
45-0	6-0	12-6
50-0	6-0	13-0

NOTES:
Use either wire wrapping or reinforcing band for stubbing material as required.
Position stub at side of pole (At right angle to direction of line and outside of angle.)

ITEM	NO REQ'D	MATERIAL		ITEM	NO REQ'D	MATERIAL	
c	2	Bolt, machine, 3/4" x required length				Wire, No. 6 galvanized steel as required	
c	2	Bolt, machine, 5/8" x required length		ai		Staples, as required	
d	4	Washer, 2 1/4" x 2 1/4" x 3/16", 13/16" hole					
j	4	Screw, lag, 1/2" x 4"					
dj	4	Band, reinforcing, 12 gage x 2" x req'd length					
dk	4	Pipe spacer, 2" extra heavy x 5" long					

STUB REINFORCING OF DISTRIBUTION LINE POLES

SCALE: NTS		DATE:02/20/95
		M15

iii. **GEC's Annual Strategic Work Plan** – Glades Electric Cooperative utilizes an annual strategic work plan that is formulated from input from GEC's management staff, employees, and Board of Trustees. Strengths, Weaknesses, Opportunities, and Threats (SWOT analysis) are identified and evaluated on an annual basis as part of the strategic planning process. Goals and specific action steps are created as a result of the SWOT analysis and a work plan is devised. The work plan utilizes the Harvard Business School's "Balanced Scorecard" system to assure our Board of Trustees of our performance in all areas of the Strategic Work Plan. Pole inspection cycles, maintenance schedules, and system upgrades are included in the strategic work plan.

b) **Transmission and distribution inspections planned and completed in 2009** – Glades Electric Cooperative planned and completed 100% of its 2009 maintenance and inspection goals. This work consisted of the following:

   i. **Distribution Inspections** - GEC completed pole inspections on approximately 4, 022 distribution poles in 2009 representing approximately 10.1% of GEC's distribution system. In addition to pole inspections, GEC line superintendents visually inspected all 2,183 miles of GEC distribution lines for NESC code violations and hazardous conditions. GEC line crews conducted inspections on 38.15 miles of underground distribution representing 100% of GEC's URD.

   ii. **Transmission Inspections** – GEC visually inspected 100% of its 87 miles of transmission lines through aerial inspections. In addition to the aerial inspections, crews also completed groundline and climbing inspections on all 87 miles of transmission line.

c) **Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.**

   i. **Distribution Pole Rejects** – GEC had approximately one hundred forty six (146) reject poles representing 3.6% of the poles inspected during 2009. Eighty eight (88) poles were rejected for decay representing 60.3% of the rejected poles and 2.2% of poles inspected in 2009. Fifty eight (58) poles were rejected due to visual observations representing 39.7% of the rejected poles and 1.4% of the poles inspected in 2009. Most of the visual rejections were primarily split pole tops due to lightning and pole top decay.

   ii. **Transmission Pole Rejects** – GEC had approximately twenty four (24) transmission pole rejects representing 2.8% of the transmission poles inspected during 2009. Five (5) structures were rejected due to groundline decay and nineteen (19) were rejected due to pole top decay.

d) **Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.**

   i. **Distribution Poles** – One hundred percent 100% of the reject poles identified in the 2009 pole inspection were replaced during 2009. GEC did not use the truss reinforcement method during 2009 and replaced all identified rejects. One hundred forty six (146) poles were replaced. All reject poles were typically thirty five foot (35') class six (6) and forty foot (40') class five (5) pentachlorophenol treated wood poles. Replacement poles consisted of Chromated Copper Arsenate (CCA) wood poles. Thirty five foot (35') reject poles were replaced with forty foot (40') class four (4) CCA wood poles. Forty foot (40') reject poles were replaced with like size and upgraded to class three (3)CCA wood poles. In addition to the distribution pole inspections, GEC rebuilt approximately thirty five (35) miles of distribution line. These projects strengthened seven (7) distribution circuits and four distribution substations. Significant projects including erecting a new substation in Okeechobee county and 8 miles of double circuit distribution from the new substation. This new substation addressed radial feed problems in Okeechobee county and increased load capacity in the area. Additionally, GEC relocated twenty (20) distribution laterals totaling 7.4 miles from backlot areas to roadside rights of way for easier access and quicker repairs in the event of storm damage. GEC completed lightning arrestor maintenance on its entire distribution system in 2009 and replaced 205 lightning arrestors.

ii. **Transmission Poles** – One hundred percent (100%) of the rejected transmission poles identified in the 2009 inspection cycle were replaced during 2009. All twenty four (24) reject transmission poles were sixty foot (60') class two (2) pentachlorophenol wood poles with wood cross arm and suspension insulator construction. Replacement poles consisted of seventy foot (70') round spun concrete poles with standoff poly insulators attached in a delta configuration. In addition to the pole inspections, GEC upgraded from wood cross arms and suspension insulators to poly standoff insulator attached in delta configuration on approximately eighty five (85) transmission structures.

5. Vegetation Management

a) Glades Electric Cooperative's policies, guidelines, practices, and procedures for vegetation management

i. **Distribution Right of Way** - Glades Electric Cooperative began a system wide circuit by circuit right of way trimming program in 1999. This initial trimming by circuit took four years to complete as GEC had never trimmed right of way in this manner. The trim cycle started over in 2003 and GEC was able to reduce and maintain the system wide circuit by circuit trimming to a three (3) year cycle. Trimming guidelines are established in RUS Bulletin 1728F-803 (D-803) Specification Unit M1.30G which states the following:

RIGHT-OF-WAY CLEARING SPECIFICATIONS

The right-of-way shall be prepared by removing trees, clearing underbrush, and trimming trees so that the right-of-way is cleared close to the ground and to the width specified. However, low growing shrubs, which will not interfere with the operation or maintenance of the line, shall be left undisturbed if so directed by the owner. Slash may be chipped and blown on the right-of-way if so specified. The landowner's written permission shall be received prior to cutting trees outside of the right-of-way. Trees fronting each side of the right-of-way shall be trimmed symmetrically unless otherwise specified. Dead trees beyond the right-of-way which would strike the line in falling shall be removed. Leaning trees beyond the right-of-way which would strike the line in falling and which would require topping if not removed, shall either be removed or topped, except that shade, fruit, or ornamental trees shall be trimmed and not removed, unless otherwise authorized.

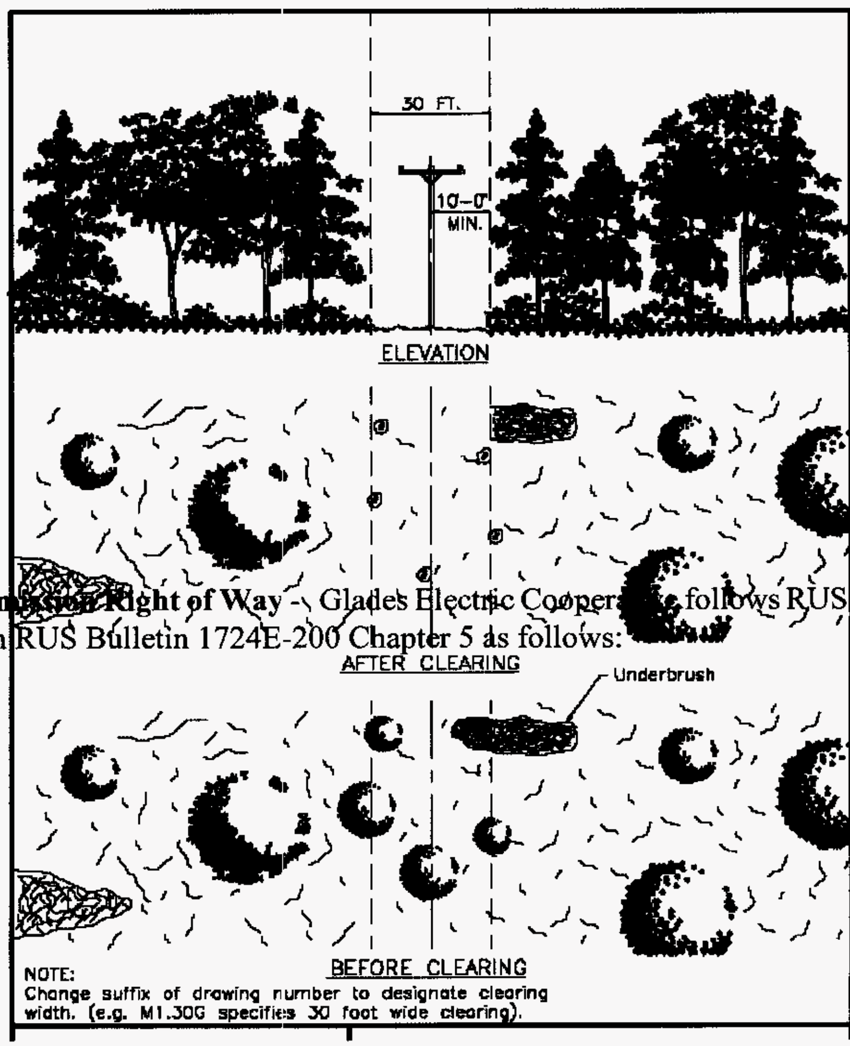
Additional right of way management practices are included in Glades Electric Cooperative's Right of Way Policy 411 as previously published in Section 3, subsection d) of this report. GEC's current Right of Way contract utilizes GEC's ROW guidelines, practices and procedures as follows:

Provide Supervision, labor and equipment to clear Glades Electric Cooperative Inc. distribution right of way as per the following specifications. Provide all necessary supervision, labor, tools, equipment and materials for the proper application of herbicides along Glades Electric Cooperative, Inc. right of ways. The State of Florida Utility Accommodations Manual (attached) shall have precedence over all herbicide applications.

1. *All distribution lines shall be trimmed to obtain ten feet of clearance or three years clearance for slow growing species, from primary phase wire.*
2. *All open wire secondary shall be trimmed to obtain five feet of clearance from each side of line.*
3. *All service lines shall be trimmed to obtain three feet of clearance on all sides.*
4. *If proper clearance cannot be obtained due to property owner objection, contractor shall secure a reasonable minimum amount of temporary clearance and review with Glades Electric.*
5. *Vines growing on pole shall be cut at a height of ten feet above grade level and at ground line then treated with approved herbicide.*
6. *Remove all danger trees to a height below Glades Electric facilities.*
7. *Remove 15% to 20% of trees within Glades Electric right of way that are four inches in diameter or less and have a mature growing height of over twenty feet.*
8. *All debris resulting from clearing and trimming shall be chipped with brush chipper or shredded on site with mower.*
9. *All stumps greater than two inches in diameter shall be treated with approved herbicide to prevent re-sprouting.*
10. *Dead and open distribution lines shall not be cleared.*
11. *Attempt to remove Palm Trees, directly under utility lines, that are within one frons lengths from conductor.*
12. *Provide a minimum of three-foot clearance around all poles, structures & guy wires.*

13. *Apply herbicide via foliar and basal treatment to selective vegetation within primary right-of way. See Herbicide specification.*
14. *Chemical selection, application rates as well as any customer notification, complaints or damage due to services rendered.*
15. *Obtaining any licenses and/or permits necessary to perform herbicide applications.*
16. *Supply Glades Electric with all labels, material safety data sheets and application rates for all chemical selections.*
17. *Providing herbicide application records to Glades Electric on a weekly basis.*
18. *Guarantee a 90% control rate, based upon stem count. Any areas that do not meet the specification will be retreated at no additional cost.*
19. *The Crew Leader shall hold a valid State of Florida Pesticide Applicators License for right-of-way vegetation control.*
20. *Herbicide applications shall consist of both foliage and basal bark applications.*
21. *The decision not to apply herbicides, due to the presence or proximity of live stock, agricultural products, highly visible and sensitive areas.*

ii. **Transmission Right of Way** - Glades Electric Cooperative follows RUS guidelines set forth in RUS Bulletin 1724E-200 Chapter 5 as follows:



5. HORIZONTAL CLEARANCES FROM LINE CONDUCTORS TO OBJECTS AND RIGHT-OF-WAY WIDTH

5.1 General: The preliminary comments and assumptions in Chapter 4 of this bulletin also apply to this chapter.

5.2 Minimum Horizontal Clearance of Conductor to Objects: Recommended design horizontal clearances of conductors to various objects are provided in Table 5-1. The clearances apply only for lines that are capable of automatically clearing line-to-ground faults.

Clearance values provided in Table 5-1 are recommended design values. In order to provide an additional cushion of safety, the recommended design values exceed the minimum clearances in the 2002 NESC.

5.2.1 Conditions Under Which Horizontal Clearances Apply:

Conductors at Rest (No Wind Displacement): When conductors are at rest the clearances apply for the following conditions: (a) 167°F but not less than 120°F, final sag, (b) the maximum operating temperature the line is designed to operate, final sag, (c) 32°F, final sag with radial thickness of ice for the loading district (0 in., ¼ in., or ½ in.).

Conductors Displaced by Wind: The clearances apply when the conductor is displaced by 6 lbs. per sq. ft. at final sag at 60°F. See Figure 5-1.

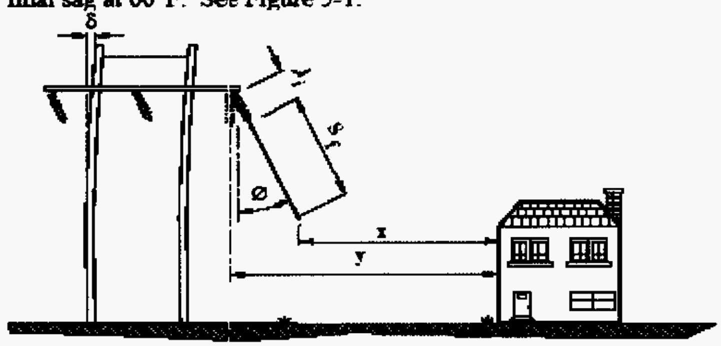


FIGURE 5-1: HORIZONTAL CLEARANCE REQUIREMENT

where:

ϕ = conductor swing out angle in degrees under 6 psf. of wind

S_f = conductor final sag at 60°F with 6 psf. of wind.

x = horizontal clearance required per Table 5-1 and conductors displaced by wind (include altitude correction if necessary)

ℓ_i = insulator string length (ℓ_i = 0 for post insulators or restrained suspension insulators).

y = total horizontal distance from insulator suspension point (conductor attachment point for post insulators) to structure with conductors at rest

δ = structure deflection with a 6 psf. Wind

TABLE 5-1
RUS RECOMMENDED DESIGN HORIZONTAL CLEARANCES FROM OTHER SUPPORTING STRUCTURES, BUILDINGS AND OTHER INSTALLATIONS (in feet)
(NESC Rules 234B, 234C, 234D, 234E, 234F, 234I, Tables 234-1, 234-2, 234-3)

Conditions under which clearances apply:

No wind: When the conductor is at rest the clearances apply at the following conditions: (a) 120°F, final sag, (b) the maximum operating temperature the line is designed to operate, final sag, (c) 32°F, final sag with radial thickness of ice for the loading district (1/4 in. for Medium or 1/2 in. Heavy).

Displaced by Wind: Horizontal clearances are to be applied with the conductor displaced from rest by a 6 psf wind at final sag at 60°F. The displacement of the conductor is to include deflection of suspension insulators and deflection of flexible structures.

The clearances shown are for the displaced conductors and do not provide for the horizontal distance required to account for blowout of the conductor and the insulator string. This distance is to be added to the required clearance. See Equation 5-1.

Clearances are based on the Maximum Operating Voltage

Nominal voltage, Phase to Phase, kV_{L-L}		**34.5 & 46**	**69**	**115**	**138**	**161**	**230**
Max. Operating Voltage, Phase to Phase, kV_{L-L}		----	72.5	120.8	144.9	169.1	241.5
Max. Operating Voltage, Phase to Ground kV_{L-G}		—	41.8	69.7	83.7	97.6	139.4
Horizontal Clearances - (Notes 1,2,3)	**NESC Basic Clear**	Clearances in feet					
1.0 From a lighting support, traffic signal support or supporting structure of another line							
At rest (NESC Rule 234B1a)	5.0	6.5	6.5	7.2	7.6	8.1	9.5
Displaced by wind (NESC Rule 234B1b)	4.5	6.2	6.7	7.6	8.1	8.5	9.9
2.0 From buildings, walls, projections, guarded windows, windows not designed to open, balconies, and areas accessible to pedestrians							
At rest (NESC Rule 234C1a)	7.5	9.2	9.7	10.6	11.1	11.5	12.9
Displaced by wind (NESC Rule 234C1b)	4.5	6.2	6.7	7.6	8.1	8.5	9.9
3.0 From signs, chimneys, billboards, radio, & TV antennas, tanks & other installations not classified as buildings							
At rest (NESC Rule 234C1a)	7.5	9.2	9.7	10.6	11.1	11.5	12.9
Displaced by wind (NESC Rule 234C1b)	4.5	6.2	6.7	7.6	8.1	8.5	9.9
4.0 From portions of bridges which are readily accessible and supporting structures are not attached							
At rest (NESC Rule 234D1a)	7.5	9.2	9.7	10.6	11.1	11.5	12.9
Displaced by wind (NESC Rule 234D1b)	4.5	6.2	6.7	7.6	8.1	8.5	9.9
5.0 From portions of bridges which are ordinarily inaccessible and supporting structures are not attached							
At rest (NESC Rule 234D1a)	6.5	8.2	8.7	9.6	10.1	10.5	11.9
Displaced by wind (NESC Rule 234D1b)	4.5	6.2	6.7	7.6	8.1	8.5	9.9

TABLE 5-1 (continued)
RUS RECOMMENDED DESIGN HORIZONTAL CLEARANCES FROM OTHER SUPPORTING STRUCTURES, BUILDINGS AND OTHER INSTALLATIONS (in feet)
(NESC Rules 234B, 234C, 234D, 234E, 234F, 234I, Tables 234-1, 234-2, 234-3)

Conditions under which clearances apply –See the previous page and section 5.2.1 of this bulletin. Clearances are based on the Maximum Operating Voltage							
Nominal voltage, Phase to Phase, kV_{L-L}		**34.5 & 46**	**69**	**115**	**138**	**161**	**230**
Max. Operating Voltage, Phase to Phase, kV_{L-L}		----	72.5	120.8	144.9	169.1	241.5
Max. Operating Voltage, Phase to Ground, kV_{L-g}		----	41.8	69.7	83.7	97.6	139.4
Horizontal Clearances - (Notes 1,2,3)	NESC Basic Clear	Clearances in feet					
6.0 Swimming pools – see section 4.4.3 of Chapter 4 and item 9 of Table 4–2. (NESC Rule 234E)							
Clearance in any direction from swimming pool edge (Clearance A, Figure 4-2 of this bulletin)	25.0	27.2	27.7	28.6	29.1	29.5	30.9
Clearance in any direction from diving structures (Clearance B, Figure 4-2 of this bulletin)	17.0	19.2	19.7	20.6	21.1	21.5	22.9
7.0 From grain bins loaded with permanently attached conveyor							
At rest (NESC Rule 234F1b)	15.0	17.2	17.7	18.6	19.1	19.5	20.9
Displaced by wind (NESC Rule 234C1b)	4.5	6.7	7.2	8.1	8.6	9.0	10.4
8.0 From grain bins loaded with a portable conveyor. Height 'V' of highest filling or probing port on bin must be added to clearance shown. Clearances for 'at rest' and not displaced by the wind. See NESC Figure 234-4 for other requirements. **Horizontal clearance envelope (includes area of sloped clearance per NESC Figure 234-4b)**		(24+V) + 1.5V (Note 3)					
9.0 From rail cars (Applies only to lines parallel to tracks) See Figure 234-5 and section 234I (Eye) of the NESC **Clearance measured to the nearest rail**		14.1	14.1	15.1	15.6	16.0	17.5
ALTITUDE CORRECTION TO BE ADDED TO VALUES ABOVE							
Additional feet of clearance per 1000 feet of altitude above 3300 feet		.02	.02	.05	.07	.08	.12

Notes:
(A) Clearances for categories 1-5 in the table are approximately 1.5 feet greater than NESC clearances.
(B) Clearances for categories 6-9 in the table are approximately 2.0 feet greater than NESC clearances.
(C) "V" is the height of the highest filling or probing port on a grain bin. Clearance is for the highest voltage of 230 kV.

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5.2.2 <u>Clearances to Grain Bins</u>: The NESC has defined clearances from grain bins based on grain bins that are loaded by permanent or by portable augers, conveyers, or elevator systems.

In NESC Figure 234-4(a), the horizontal clearance envelop for permanent loading equipment is graphically displayed and shown Figure 5-2.

P = probe clearance, item 7, Table 4-2
H = horizontal clearance, item 7, Table 5-1
T = transition clearance
V_1 = vertical clearance, item 2&3, Table 4-2
V_2 = vertical clearance, Table 4-1

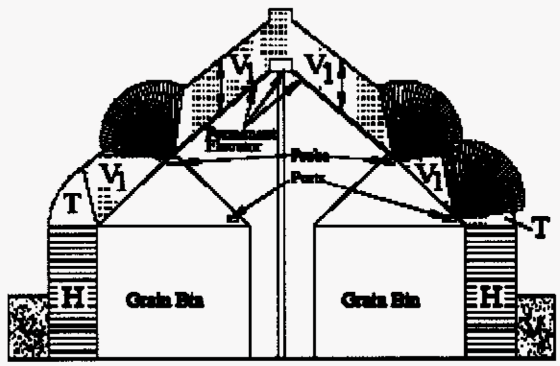


FIGURE 5-2: CLEARANCE TO GRAIN BINS
NESC FIGURE 234-4a

Because the vertical distance from the probe in Table 4-2, item 7.0, is greater than the horizontal distance, (see Table 5-1, item 7.0), the user may want to simplify design and use this distance as the horizontal clearance distance as shown below:

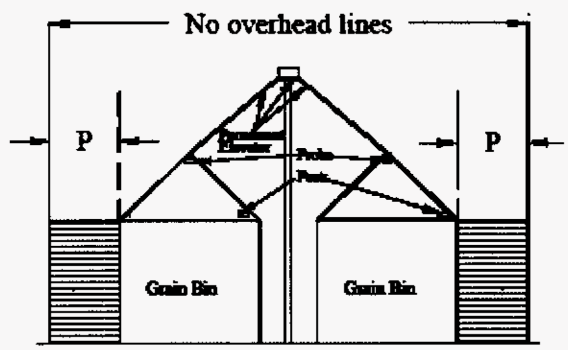


FIGURE 5-3: HORIZONTAL CLEARANCE TO GRAIN BINS, CONDUCTORS AT REST
P = clearance from item 7, Table 4-2

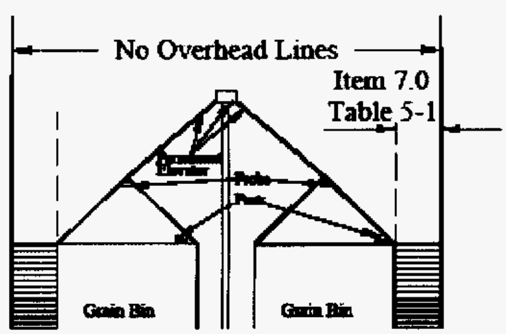


FIGURE 5-4: HORIZONTAL CLEARANCE TO GRAIN BINS, CONDUCTORS DISPLACED BY WIND

The clearance envelope for portable loading equipment from NESC Figure 234(b), is shown in Figure 5-5.

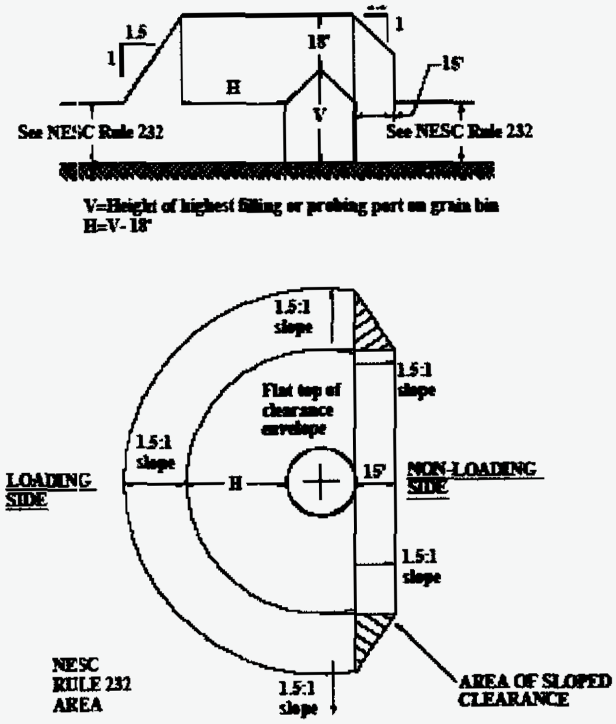


FIGURE 5-5: NESC CLEARANCE TO GRAIN BINS WITH PORTABLE LOADING EQUIPMENT

RUS has a simplified the clearance envelope. The horizontal clearances in category 8 of Table 5-1 are shown as 'H' in the drawing below:

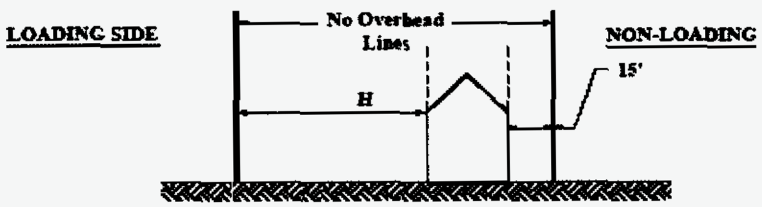


FIGURE 5-6: RUS SIMPLIFIED RECOMMENDATIONS FOR CLEARANCES TO GRAIN BINS WITH PORTABLE LOADING EQUIPMENT

5.2.3 Altitude Greater Than 3300 Feet: If the altitude of the transmission line or portion thereof is greater than 3300 feet, an additional clearance as indicated in Table 5-1 has to be added to the base clearance given.

5.2.4 Total Horizontal Clearance to Point of Insulator Suspension to Object: As can be seen from Figure 5-1, the total horizontal clearance (y) is:

$$y = \left(\ell_i + S_f\right)\sin\phi + x + \delta \qquad \text{Eq. 5-1}$$

Symbols are defined in Section 5.2.1 and figure 5-1.

The factor "δ" indicates that structure deflection should be taken into account. Generally, for single pole wood structures, it can be assumed that the deflection under 6 psf of wind will not exceed 5 percent of the structure height above the groundline. For unbraced wood H-frame structures the same assumption can be made. For braced H-frame structures, the deflection under 6 psf of wind will be considerably less than that for a single pole structure, and is often assumed to be insignificant.

For the sake of simplicity when determining horizontal clearances, the insulator string should be assumed to have the same swing angle as the conductor. This assumption should be made only in this chapter as its use in calculations elsewhere may not be appropriate.

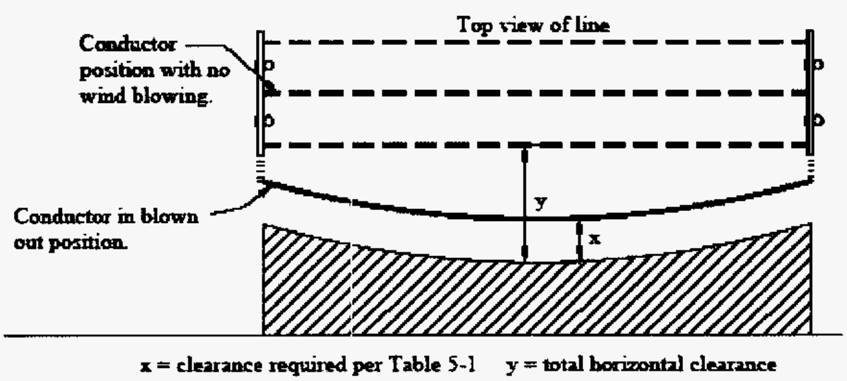
The conductor swing angle (ϕ) under 6 psf of wind can be determined from the formula.

$$\phi = \tan^{-1}\left(\frac{(d_c)(F)}{12\, w_c}\right) \qquad \text{Eq. 5-2}$$

where:

d_c = conductor diameter in inches
w_c = weight of conductor in lbs./ft.
F = wind force; use 6 psf in this case

The total horizontal distance (y) at a particular point in the span depends upon the conductor sag at that point. The value of (y) for a structure adjacent to the maximum sag point will be greater than the value of (y) for a structure placed elsewhere along the span. See Figure 5-8.



x = clearance required per Table 5-1 y = total horizontal clearance

FIGURE 5-7: A TOP VIEW OF A LINE SHOWING TOTAL HORIZONTAL CLEARANCE REQUIREMENTS

5.2.5 Examples of Horizontal Clearance Calculations: The following examples demonstrate the derivation of the horizontal clearance in Table 5-1 of this bulletin.

To determine the horizontal clearance of a 115 kV line to a building (category 2.0 of RUS Table 5-1), the clearance is based on NESC Table 234-1 and NESC Rule 234.

At rest:

NESC Horizontal Clear. = NESC Basic Clearance(Table 234-1) + $.4(kV_{L-G} - 22)/12$
= 7.5 feet + .4(69.7-22)/12 feet
= 7.5 feet + 1.59 feet
NESC Horizontal Clear. = 9.09 feet

RUS Recommended Clearance = NESC Horizontal Clearance + RUS Adder
= 9.09 feet + 1.5 feet
= 10.59 feet (10.60 feet in RUS Table 5-1)

Conductors displaced by wind:

NESC Horizontal Clear. = NESC Basic Clearance (Table 234-1) + $.4(kV_{L-G} - 22)/12$
= 4.5 feet + .4(69.7-22)/12 feet
= 4.5 feet + 1.59 feet
NESC Horizontal Clear. = 6.09 feet

RUS Recommended Clearance = NESC Horizontal Clearance + RUS Adder
= 6.09 feet + 1.5 feet
= 7.59 feet (7.6 feet in RUS Table 5-1)

5.3 Right-of-Way (ROW) Width: For transmission lines, a right-of-way provides an environment allows the line to be operated and maintained safely and reliably. Determination of the right-of-way width is a task that requires the consideration of a variety of judgmental, technical, and economic factors.

Typical right-of-way widths (predominantly H-frames) that have been used by RUS borrowers in the past are shown in Table 5-2. In many cases a range of widths is provided. The actual width used will depend upon the particulars of the line design.

TABLE 5-2
TYPICAL RIGHT-OF-WAY WIDTHS

	Nominal Line-to-Line Voltage in kV				
	69	115	138	[illegible]	230
ROW Width, ft.	75-100	100	100-150	100-150	125-200

5.4 Calculation of Right-of-Way Width for a Single Line of Structures on a Right-of-Way: Instead of using typical right-of-way width provided in Table 5-2, widths can be calculated using either of the two methods below. They yield values that are more directly related to the particular parameters of the line design.

5.4.1 **First Method:** This method provides sufficient width to meet clearance requirements to buildings of undetermined height located directly on the edge of the right-of-way. See Figure 5-7.

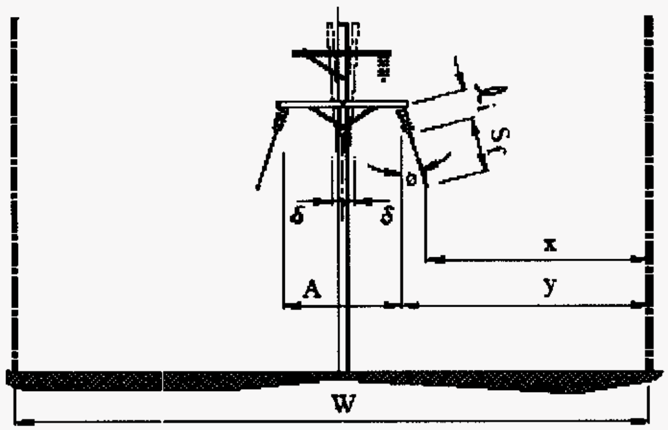


FIGURE 5-8: ROW WIDTH FOR SINGLE LINE OF STRUCTURES (FIRST METHOD)

$$W = A + 2(\ell_i + S_f)\sin\phi + 2\delta + 2x \qquad \text{Eq. 5-3}$$

where:

- W = total right-of-way width required
- A = separation between points of suspension of insulator strings for outer two phases
- x = clearance required per Table 5-1 of this bulletin (include altitude correction if necessary)

Other symbols are as previously defined.

There are two ways of choosing the length (and thus the sag) on which the right-of-way width is based. One is to use a width based on the maximum span length in the line. The other way is to base the width on a relatively long span, (the ruling span, for instance), but not the longest span. For those spans that exceed this base span, additional width is added as appropriate.

5.4.2 **Second Method:** The right-of-way width can be based on allowing the phase conductor to blow out to the edge of the right-of-way under extreme wind conditions (such as the 50 or 100-year mean wind). See Figure 5-9. This method is used when there is an extremely low probability of structures being built near the line.

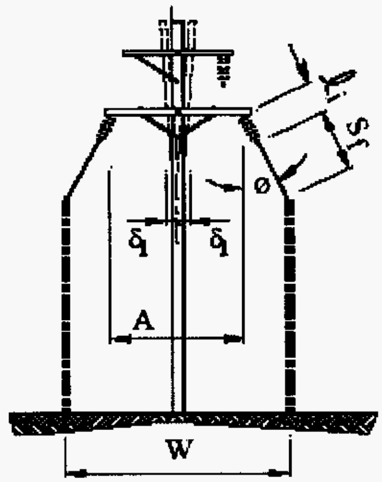


FIGURE 5-9: ROW WIDTH FOR SINGLE LINE OF STRUCTURES (SECOND METHOD)

From Figure 5-9 it can be seen that the formula for the width is:

$$W = A + 2(\ell_i + S_f)\sin\phi + 2\delta_1 \quad \text{Eq. 5-4}$$

where:

ϕ = conductor swing out angle in degrees at extreme wind conditions. ϕ can be determined using Equation 5-2 with a wind force value F for the extreme wind condition (see Appendix E for conversion of wind velocity to wind pressure).

S_f = conductor final sag at extreme wind conditions at the temperature at which the wind is expected to occur

δ_1 = structure deflection under extreme wind conditions

Other symbols are as previously defined.

As with the previous method, the sags in the calculations can be based on either the maximum span or the ruling span, with special consideration given to spans longer than the ruling span.

5.5 <u>Right-of-Way Width for a Line Directly Next to a Road</u>: The right-of-way width for a line next to a road can be calculated based on the two previous sections with one exception. No ROW is needed on the road side of the line as long as the appropriate clearances to existing or possible future structures on the road side of the line are met.

If a line is to be placed next to a roadway, consideration should be given to the possibility that the road may be widened. If the line is on the road right-of-way, the borrower would generally be expected to pay for moving the line. If the right-of-way is on private land, the highway department should pay. Considerations involved in placing a line on a road right-of-way should also include evaluation of local ordinances and requirements.

5.6 Right-of-Way Width for Two or More Lines of Structures on a Single Right-of-Way: To determine the right-of-way width when the right ROW contains two parallel lines, start by calculating the distance from the outside phases of the lines to the ROW edge (see Section 5.4). The distance between the two lines is governed by the two criteria provided in section 5.6.1. If one of the lines involved is an EHV line (345 kV and above), the National Electrical Safety Code should be referred to for additional applicable clearance rules not covered in this bulletin.

5.6.1 Separation Between Lines as Dictated by Minimum Clearance Between Conductors Carried on Different Supports: The horizontal clearance between a phase conductor of one line to a phase conductor of another line shall meet the larger of C_1, or C_2 below, under the following conditions: (a) both phase conductors displaced by a 6 psf wind at 60°F, final sag; (b) if insulators are free to swing, one should be assumed to be displaced by a 6 lbs/sq. ft. wind while the other should be assumed to be unaffected by the wind (see Figure 5-10). The assumed wind direction should be that which results in the greatest separation requirement. It should be noted that in the Equations 5-5, and 5-6, the 'δ_1-δ_2' term, (the differential structure deflection between the two lines of structures involved), is to be taken into account. An additional 1.5 feet have been added to the NESC clearance to obtain design clearances 'C_1'and 'C_2'.

$$C_1 = 6.5 + (\delta_1 - \delta_2) \text{ (NESC Rule 233B1)} \qquad \text{Eq. 5-5}$$

$$C_2 = 6.5 + \frac{.4}{12}\left[(kV_{LG1} + kV_{LG2}) - 129\right] + (\delta_1 - \delta_2) \text{ (NESC Rule 233B1)} \qquad \text{Eq. 5-6}$$

where:

C_1, C_2 = clearance requirements between conductors on different lines in feet (largest value governs)
kV_{LG1} = maximum line-to-ground voltage in kV of line 1
kV_{LG2} = maximum line-to-ground voltage in kV of line 2
δ_1 = deflection of the upwind structure in feet
δ_2 = deflection of the downwind structure in feet

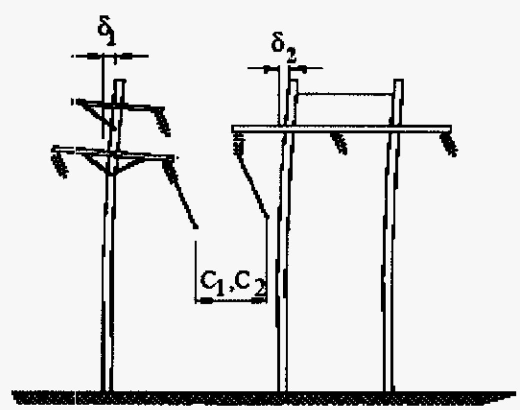


FIGURE 5-10: CLEARANCE BETWEEN CONDUCTORS OF ONE LINE TO CONDUCTOR OF ANOTHER LINE

5.6.2 <u>Separation Between Lines as Dictated by Minimum Clearance of Conductors From One Line to the Supporting Structure of Another</u>: The horizontal clearance of a phase conductor of one line to the supporting structure of another when the conductor and insulator are displaced by a 6 psf wind at 60°F final sag should meet Equation 5-7.

$$C_3 = 6' + \frac{.4}{12}(kV_{LG} - 22) + (\delta_1 - \delta_2) \qquad \text{Eq. 5-7}$$

where:

kV_{LG} = the maximum line-to-ground voltage in kV
C_3 = the clearance of conductors of one line to structure of another in feet

Other symbols are defined in Figure 5-1.

Additional 1.5 feet have been added to the NESC clearance and included in equation 5-7 to obtain the design clearance 'C_3'.

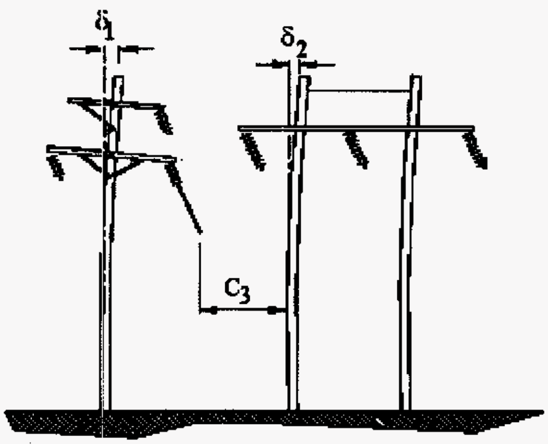


FIGURE 5-11: CLEARANCE BETWEEN CONDUCTORS OF ONE LINE AND STRUCTURE OF ANOTHER

The separation between lines will depend upon the spans and sags of the lines as well as how structures of one line match up with structures of another. In order to avoid the unreasonable task of determining separation of structures span-by-span, a standard separation value should be used, based on a worst case analysis. Thus if structures of one line do not always line up with those of the other, the separation determined in section 5.6.2 should be based on the assumption that the structure of one line is located next to the mid-span point of the line that has the most sag.

5.6.3 <u>Other Factors</u>: Galloping should be taken into account in determining line separation. In fact, it may be the determining factor in line separation. See Chapter 6 for a discussion of galloping.

b) **Quantity, Level, and Scope of vegetation management planned and completed in 2009:** Glades Electric Cooperative completed all planned right of way trimming in 2009 consisting of approximately 664 miles of distribution line. This work involved thirteen (13) distribution circuits from six (6) GEC substations. All completed vegetation management work was done in accordance with the guidelines published in Section 5, subsection a) of this report.

GEC's transmission rights of ways were inspected during 2009 and trimming was completed on approximately 1.5 miles of transmission line as required. Transmission rights of ways are inspected annually and trimmed if necessary. Most of GEC's transmission lines are located on cultivated land and vegetation growth is not an issue.

GEC believes that its right of way program is a valuable asset to its members and feels that the current program is effective.

Gulf Coast Electric Cooperative
A Touchstone Energy® Cooperative

Gulf Coast Electric Cooperative, Inc. Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction:

Gulf Coast Electric Cooperative, Inc. main office is located within the City limits of Wewahitchka, Gulf County, Florida seventeen miles inland from the Gulf of Mexico. The Cooperative's District office is located within the Community of Southport, Bay County, Florida approximately thirteen miles inland from the Gulf of Mexico. The cooperative serves electricity to 20,038 customers in Gulf, Calhoun, Bay, Walton, Jackson and Washington counties. GCEC's distribution system is composed of power distribution lines operating at 14.4/24.94kv with one substation still operating at 7.2/12.47kv, both aerial and underground. GCEC receives power from PowerSouth Energy Cooperative's transmission system operating in Andalusia, Alabama. The transmission voltage is rated at 115kv at the 14.4/24.94kv substations and 46kv at the 7.2/12.47kv substation. *GCEC lost another 196 customers in 2008 / 2009 along with the 162 customers from year 2007. This data is directly related to the economic crisis of year 2008.*

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Wewahitchka, Fl 32465

2) Contacts:

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P.O. Box 8370		P.O. Box 8370
Southport, Fl 32409		Southport, Fl 32409
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2) The number of meters served in calendar year 2009 was 20,671

3) Standards of Construction

1) National Electrical Safety Code Compliance: Grade C construction. Construction standards, policies, guidelines, practices, and procedures at Gulf Coast Electric Cooperative, Inc. comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 01, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

As a RUS borrower, we must "ensure that all our electric distribution system is designed, constructed, operated, and maintained in accordance with all applicable provisions of the most current and accepted criteria of the NESC and all applicable and current electrical and safety requirements of any State and local governmental entity."

2) Extreme Wind Loading Standards
At this time, Gulf Coast Electric Cooperative, Inc. facilities are not bound by the extreme loading standards as our system is 99.9% under the 60ft 'extreme wind loading' requirements. The method of construction used by GCEC does, however, meet the 'design to withstand, without conductors, extreme wind loading in Rule 250C applied in any direction on the structure'. We continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas. At this time, we do not have sufficient data to substantiate the effort and cost of making major upgrades to our system. We feel that it is important to wait for the results of the PURC research before making such commitment.

"RUS electrical standard requirements are in addition to, and not in substitution for or a modification of, the most current and accepted criteria of the NESC and any applicable electrical or safety requirements of any State or local governmental entity."

3) Flooding and Storm Surges
Gulf Coast Electric Cooperative, Inc. is in the process of evaluating our standards, policies, guidelines, practices and procedures that address the effects of flooding and storm surges on underground facilities and supporting overhead facilities. GCEC is participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of underground facilities in preventing storm damage and outages through the Florida Electric Cooperative Association. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research to justify the effort and cost of converting overhead to underground.

4) Safe and Efficient Access of New and Replacement Distribution Facilities:
Electrical construction standards, polices, guidelines, practices, and procedures at Gulf Coast Electric Cooperative, Inc. provide for placement of new and replacement distribution facilities to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that the GCEC facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. GCEC decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

5) Attachments by Others
Electrical construction standards, policies, guidelines, practices, and procedures at Gulf Coast Electric Cooperative, Inc. include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's distribution poles. Quarterly pole line inspections of 'work-orders' are performed by GCEC's consulting Engineer for RUS purposes, for newly constructed jobs. The inspections encompass all pole line construction criteria. General inspections are currently done on an eight year cycle.

4) Facility Inspections

1) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

Gulf Coast Electric Cooperative, Inc has no transmission lines.
Gulf Electric Cooperative, Inc. conforms to RUS Bulletin 1730B-12 for Pole Inspection and Maintenance, and performs general pole inspections on its distribution lines on an eight-year cycle. Poles that do not pass inspection are changed out to satisfy service and safety reliability and to meet the requirements of the National Electrical Safety Code in effect at the current time. The pole selection process is by substation and by distribution feeder.
GCEC also inspects with the PSC, a percentage of new completed pole line construction called for by the PSC. The selection process is done by the PSC.
GCEC also inspects a percentage of new pole line construction chosen quarterly on its own. The selection process is done by random choice.

2) Describe the number and percentage of transmission and distribution inspections planned and completed for 2009.

Gulf Coast Electric Cooperative, Inc. has no transmission lines.
GCEC inspected 818 poles, in house, in 2009 with 24 rejects.
GCEC contracted pole line inspection for the year 2008, and completed the inspection of 10,158 poles. With the completion of the 2008 contract, GCEC is on an 8-year pole inspection cycle.
The general pole inspection for 2006 was not completed, and carries over into year 2007. Of the 45,560 poles on the system, 3443 poles were inspected, which is 7.5% of system poles inspected in year 2006. In year 2007 10275 poles were inspected which is 22.5% of system poles.
The number of poles inspected for the year of 2004 was 9,904 poles, which is 21.7% of system poles.
The number of poles inspected in the year 2002 was 9,061 poles, which is 19.8% 0f system poles.

The Gulf Coast Electric Cooperative, Inc. quarterly pole line inspections were completed in the December 2009. GCEC's quarterly pole line inspections encompass a minimum of 15% of new pole line construction for each quarter of the year.

3) Describe the number and percentage of distribution poles failing inspection and the reason for the failure.

818 poles were inspected in 2009 with 24 poles rejected for a rejection rate of 2.9%.
10,158 poles were inspected in year 2008 with 226 poles rejected for a rejection rate 2,2%. The majority of the rejected poles was due to butt rot, heart rot and rotted tops.
In year 2007 10275 poles were inspected and 241 poles were rejected for a 2.3% rejection rate.
Of the 3443 poles inspected in year 2006, there was 130 poles rejected, which is a 3.7% rejection rate.
The number of poles inspected for the year of 2004 was 9,904 poles. Of the 9,904 poles inspected, 195 poles failed inspection. The percentage of failed poles to the number of poles inspected was 1.97%.
The number of poles inspected in year 2002 was 9,061 poles. A total of 62 poles were found to have fallen below minimum strength requirements and were rejected (51 were rejected poles with below ground line decay and 11 for other reasons), which is a 0.6% rejection rate.
The reason for failure was rotten tops, holes at the tops, broken pole, pole split and pole leaning.

5) Vegetation Management

Gulf Coast Electric Cooperative, Inc. owns and operates approximately 1632 miles of overhead and underground Primary power lines. We strive to cut all the ROW on a 5-year cycle. We are at present on a definitive 4-year program. According to the particular line construction specifications, we cut between 20 feet and 30 feet width, ground to sky. Certified Arborist personnel manage GCEC Inc.'s ROW program. We also utilize ROW contractors for our clear-cut ROW maintenance program.

Estimated ROW clearing costs are approximately $750,000 annually to cut 100% on a 4-year program. At this time, it is cost prohibitive for our members to cut 100% on a 3-year cycle. GCEC cuts on a geographic and substation selective basis to maintain a respectful and systematic program. In year 2006 GCEC cut approximately 400 miles of ROW. In year 2007 GCEC cut approximately 400 miles of ROW. For the year 2008 another 400 miles was cut, and we have a 3-year contract to cut 400 miles per year. This 400 mile per year cut puts GCEC on a 4-year program for ground to sky cut.

GCEC is working progressively into a systematic herbicide-spraying program. Our plans are to spray 12 to 18 months behind our clearing and mowing program.

GCEC works closely with the Florida DOT and the various County governments' accommodations guidelines for our vegetation management. GCEC also works closely with property owners for problem tree removal and in selective cases, planting and landscaping.

GCEC personnel attended the vegetation conference in March, 2007 that the PURC research group is holding. GCEC will utilize any useful information that may result from this conference, and this will be referenced in our report next year.

Annual Report on Lee County Electric Cooperative, Inc.'s (LCEC)
Standards of Construction, Facility Inspections, and Vegetation Management
2009 Calendar Year

Standards of Construction:

a) LCEC's construction standards, policies, guidelines, practices, and procedures comply with the National Electrical Safety Code (ANSI C-2) [NESC]. Electrical facilities constructed through December 31, 2009 comply with the edition of the code in effect at the time of the facility's initial construction.

b) LCEC has construction standards, for required facilities, that meet the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC.

c) Although not waterproof, LCEC's equipment and constructed facilities are designed to be water resistant. The majority of our underground facilities (excluding conduits and cables) are at or above existing/surrounding grade. Even with these design and installation considerations, LCEC experienced some significant damage to our underground facilities as the result of flooding and storm surges. On the other hand, it has been LCEC's experience that flooding and storm surges have little effect on overhead facilities whether part of an underground or overhead system.

d) Although often at odds with the desires of customers and governmental entities, LCEC's current practice is to place the majority of new and replacement distribution facilities in the front of lots. This does provide in most cases the safest and most efficient access for installation and maintenance. If necessary, easements for placement of distribution faculties are requested from customers.

e) LCEC's standards for joint use provide clearances (distances) for conductors, equipment, and risers. The joint use agreements that are entered into with pole attachment parties detail the process for evaluating pole loading capacity. Additionally, the agreements define the responsibilities for pole reliability and upgrading. Currently, LCEC does not permit attachments to transmission poles.

Facility Inspections:

a) <u>Transmission inspection annual (230 kV) and 2-year cycle (138 kV):</u> Inspect all poles and structures by either climbing or with the use of a bucket truck. Inspect poles, structures, guys, anchors, insulators, crossarms, conductors, shield wires, right-of-way, for any structural deficiency or any situation that may impact the structural integrity of the facility. Inspections are conducted by either climbing the pole/structure or with the use of a bucket truck.

<u>Distribution inspection 10-year cycle</u>: Inspect all poles for splitting, cracking, visual decay, twisting, and bird damage. Patch minor woodpecker holes. When

digging around ground line of poles for ground rod checks, check pole for ground rot. Sounding and assessing each pole for deteriorating by probing with a screwdriver. Examine concrete poles for evidence of cracks and physical damage. Plumb poles if they are (1+) pole top out of plumb.

b) In 2009, LCEC inspected 1500 out of a total of 2020 transmission poles and structures. This included 100% of the 230 kV facilities and 67.5% of the 138 kV facilities. This was 100% of scheduled.

In 2009, LCEC completed inspections on 37,342 distribution poles. This was 95.9% of inspections scheduled and 23.6% of total poles.

c) During the 2009 inspection of the transmission facilities, 128 poles (8.5% of inspected, 6.3% of total) failed inspection criteria. Of these, 19 failed due to woodpecker damage and 109 failed due to rot.

During the 2009 inspection of the distribution facilities, 1512 poles (4.0% of inspected, 1.0% of total) failed inspection criteria. Of these, 616 failed due to rot, 784 failed due to out of plumb, and 112 failed due to woodpecker damage.

d) In 2009, LCEC repaired through patching 19 (15% that failed inspection) transmission poles. The remaining 109 (85% that failed inspection) transmission poles will be replaced during 2010 (currently in progress), of which most are 65-foot Class 2 tangent and angle structures. The majority of the replacement poles will be concrete with a few replaced with wood poles ranging in height from 60-foot to 85-foot and will be either Class 2 or Class 1.

In 2009, LCEC repaired through re-plumbing 784 (52% that failed inspection) and repaired through patching 112 (7% that failed inspection) distribution poles. The remaining 616 (41% that failed inspection) distribution poles were replaced in 2009.

Vegetation Management:

(a) LCEC has developed the following Vegetation Management Program for the control of vegetation on its distribution facilities. This Program covers the maintenance of vegetation for over 4,000 miles of single, double and three-phase distribution lines. Goals and strategies of the program are:

1) Maintain reliability of the distribution lines by controlling vegetation to meet the requirements of NESC and ANSI.

2) Strategies for control include cultural, mechanical, manual, and chemical treatments.

3) LCEC's practices planned circuit trimming on a six year cycle for single phase and a three year cycle for double and three phase distribution.

4) Approved procedures include directional trim techniques per ANSI A300 standard. Maintain side clearance of 8-10 feet or employ the use of directional trim technique of taking the cut to the next lateral beyond the standard clearance point. Standard ground/horizontal clearance is one foot below the lower most cable attachment or 12 feet from the primary, which ever is greater. Palm trees are tipped back so fronds will not make contact with the primary when they drop. Overhang less than 15 feet above the primary is removed. All vines are cut and sprayed.

LCEC's TREES (To Respect Electricity and the Environment Safely) communication program focuses on planting and landscaping. Key messages are incorporated into the customer newsletter at least twice a year. Door hangers with brochures containing detailed information about planting the right tree in the right place are distributed throughout neighborhoods prior to circuit trimming. Through LCEC's Public Relations Department, presentations are used to promote smart landscaping to city government, builders and local agencies

LCEC maintains a bi-annual ground inspection of ROW Restriction Vegetation with trim/maintenance done as required.

(b) 2009's Planned Vegetation Management for transmission and distribution was completed as follows:

2009 Vegetation Management Schedule			
	YE Actual	YE Goal	% Goal
Transmission trimming*	230.4	230.4	100%
Three-phase trimming*	281.5	281.5	100%
Single-phase trimming*	442.4	442.4	100%
Transmission mowing*	27.8	27.8	100%
230 kV Inspection	Mar & Jul	Bi-annual	100%
138 kV inspection	Jan thru Dec	Annual	100%
ROW Restriction Inspection/Maintenance	Jan & Aug	Bi-annual	100%

* Miles

Summary of Rural Electric Cooperative Utility Reports Pursuant to Rule 25-6.0343, F.A.C. – Calendar Year 2009													
	The extent to which Standards of Construction address:							Transmission & Distribution Facility Inspections:				Vegetation Management:	
		Guided by Extreme Wind Loading per Figure 250-2(d)											
Utility	Comply with the 2007 NESC on or after 2/1/2007	New Const.	Major Planned Work, Expansion, Rebuild, or Relocation	Targeted Critical Infrastructure and major thoroughfares	Effects of flooding & storm surges on UG & OH distribution facilities	Placement of distribution facilities to facilitates safe and efficient access	Written safety, pole reliability, pole loading capacity, and engineering stds for Attachments	Description of policies, guidelines, practices, procedures, cycles and pole selection.	No. & Pct. of poles & structures planned & completed	No. & Pct. of poles & structures failing inspection w/ reasons	No. & Pct. of poles & structures, by class, replaced or remediated w/ description	Description of policies, guidelines, practices, procedures, tree removals, w/ sufficiency explanation.	Quantify, level, & scope planned and completed for transmission and distribution.
Lee County Electric Cooperative Inc.	Yes.	guided by 2007 Figure 250-2(d).			Yes.	Yes.	Yes.	T: Annually on 230 KV Every two years on 138 KV D: 10-Yr	T: 1500 planned 100% completed D: 38,942 planned; 37,342 completed (95.9%)	T 109 decay, 19 woodpecker Damage D: 616 (1.6%) rot; 784 (2.1%) plumb; 112 (0.3%) woodpecker	T. replace 109 rotted & patched 19 woodpecker damaged D: 616 replaced. 784 replumb; 112 patched	T: 230KV bi-annual; 138KV Annual D: 3-Yr (2&3 Phase circuits); 6-Yr (1 Phase circuits)	100% of plan

Report to the Florida Public Service Commission
Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

Okefenoke Rural Electric Membership Corporation
P.O. Box 602
14384 Cleveland Street
Nahunta, Georgia 31553

Contact Information:

Ernie Thomas
Manager of Engineering Services
800-262-5131 Ext. 1138
912-462-6100 Fax
ernie.thomas@oremc.com

2) Members Served

As of December 31st 2009, Okefenoke Rural Electric Membership Corporation serves 24,856 meters in the state of Georgia, and 9,988 meters in the state of Florida. The total number of meters served system-wide is 34,844.

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the Okefenoke Rural Electric Membership Corporation comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. The edition of the NESC in effect at the time of the facility's initial construction governs electrical facilities constructed prior to February 1, 2007.

b) Extreme Wind Loading Standards

At this time, the design of Okefenoke Rural Electric Membership Corporation's facilities are not guided by the extreme loading standards on a system wide basis. Though we continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas, at this time we do not have sufficient data to substantiate the effort and cost of making major upgrades to our system. The cooperative has made conscious efforts over the years when replacing poles and building new lines, to upgrade the pole class size and strength of pole-top materials.

Okefenoke Rural Electric Membership Corporation has participated in the Public Utility Research Center's (PURC) granular wind research study through the Florida Electric Cooperative Association. Through contracting with the University of Florida's Department of Civil & Coastal Engineering Department, the PURC is working to establish a granular wind observation network. This network will collect high quality meteorological information during tropical storms and hurricanes. The measurement of the overland ground level wind behavior during landfall should provide useful information to utilities considering hardening their infrastructure against hurricane wind loads.

c) Flooding and Storm Surges

Okefenoke Rural Electric Membership Corporation is in the process of evaluating our standards, policies, guidelines, practices and procedures that address the effects of flooding and storm surges on underground facilities and supporting overhead facilities. Okefenoke Rural Electric Membership Corporation is participating through the Florida Electric Cooperative Association in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground (Under-grounding) and the effectiveness of under-grounding facilities in preventing storm damage and outages. Phases I and II of this study are complete.

Phase I concluded that the conversion of overhead electric distribution systems to underground is costly and that these costs are in excess of quantifiable benefits, except in rare cases where the facilities provide particularly high reliability gains or otherwise have a higher than average impact on community goals. No prior cost benefit study recommends broad-based under-grounding, but several recommend targeted under-grounding to achieve specific community goals.

Phase II was completed in August 2007, and examined four specific project case studies in Florida. Some observations reported from the case study are:

1. Cost per circuit mile varies widely based on a variety of factors.

2. Cost per consumer varies widely based on both the cost per circuit mile and the amount of high-density housing.
3. Little data is available from the case studies on the impacts of under-grounding on non-storm reliability and hurricane performance, but the evidence suggests that the under-grounding had little impact on non-storm reliability and that hurricane reliability of underground systems is not perfect due to storm surge damage.
4. There is very limited data on cost and benefits of under-grounding for these projects, whereas information is available about project description and project cost.

Phase III of the PURC study on the conversion of overhead electric facilities to under-ground was begun in 2008 and continued through 2009. This phase of the study has resulted in the ongoing development of a computer model to identify and evaluate the costs and benefits of under-grounding specific facilities in Florida. This model is still in the testing stages and we anticipate further updates and/or workshops to be held in 2010. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research to justify the effort and cost of investigating the conversion of overhead to underground, on a case by case basis.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the Okefenoke Rural Electric Membership Corporation provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that Okefenoke Rural Electric Membership Corporation's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. Okefenoke Rural Electric Membership Corporation decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

e) Attachments by Others

The pole attachment agreements between Okefenoke Rural Electric Membership Corporation and third-party attaching companies, with the exception of AT&T of Florida and AT&T of Georgia, include language which specifies that the attaching company, not the cooperative, has the burden of assessing pole strength and safety before they attach to the pole. A registered professional engineer licensed in the state in which the attachment is made, is required to certify that new permitted attachments fully comply with the latest edition of the National Electrical Safety Code. Okefenoke Rural Electric Membership Corporation performs follow-up audits of attachments to ensure the attachment is properly installed and maintained.

The AT&T of Georgia Joint Use Agreement requires each party to at all times, maintain all of its attachments in accordance with the specifications of the agreement. This includes as a minimum, the requirements of the National Electrical Safety Code (NESC) and subsequent revisions thereof. As a part of the permitting process for new attachments, the attaching company is required to submit all technical information necessary for verification by the pole owner of compliance with the NESC. Okefenoke Rural Electric Membership Corporation performs follow-up audits of attachments to ensure the attachment is properly installed and maintained.

Okefenoke Rural Electric Membership Corporation is currently negotiating a new agreement with AT&T of Florida. It is anticipated that the agreement will be similar in scope to the Georgia agreement, thereby including as a minimum, the requirements of the National Electrical Safety Code for attachments. Okefenoke Rural Electric Membership Corporation performs follow-up audits of attachments to ensure the attachment is properly installed and maintained.

4. Facility Inspections

a) Guidelines, Practices, and Procedures

Okefenoke Rural Electric Membership Corporation uses RUS Bulletin 1730B-121, entitled "Pole Inspection and Maintenance" as a guideline for inspecting its distribution lines, poles, and structures. The cooperative owns no transmission facilities. The cooperative has utilized both contractors and cooperative personnel to administer the inspection and maintenance program. This procedure includes visual inspection from ground-line to the top of the pole, sound and bore with excavation, and chemical treatment of the poles.

Okefenoke Rural Electric Membership Corporation made the decision in 2006 to move to an 8-year pole inspection cycle. The cooperative had traditionally utilized a 10-year pole inspection cycle, and had seen very low rejection rates using the 10-year pole inspection cycle. But, the decision was made to accelerate the cycle to an 8-year inspection cycle, since the IOU's and most cooperatives in the state of Florida are on the 8-year cycle.

b) 2009 Inspections

Due to the economic downturn and slowed growth of the electrical distribution system in 2009, Okefenoke Rural Electric Membership Corporation was able to focus more resources on system maintenance, thereby making up for the reduced number of pole inspections completed in the year 2008. Okefenoke Rural Electric Membership Corporation inspected 22,038 distribution poles in the year 2009. This represents approximately 39% of the 56,180 wood poles on the system as of December 31, 2009. The cooperative plans to continue this accelerated rate of inspection for much of the year 2010, depending upon factors such as the economic recovery and work load.

c) Rejections

During the 2009 pole inspections, 128 distribution poles were rejected. This represents a rejection rate of approximately 0.58% of the 22,038 poles inspected in the year 2009. The cause for the rejection of each of these poles is summarized in the table below

Summary of OREMC 2009 Pole Inspection Rejections.

Cause of Rejection	Qty. of Poles
Split Top	53
Decay	41
Mechanical Damage	34
TOTAL	**128**

d) Replacement and Remediation

Of the 128 rejected wooden distribution poles found during the 2009 inspections, following is a summary of the actions taken.

25 of these rejected poles were replaced.

58 of the rejected poles were repaired. These poles were rejected due to split top, woodpecker damage, or other mechanical damage.

45 of the rejected poles were inactive poles and were retired from the system.

5. Vegetation Management

a) Guidelines, Practices, and Procedures

Okefenoke Rural Electric Membership Corporation utilizes contractors for its vegetation management programs, with supervision from the cooperative's staff. Vegetation control practices consist of complete clearing to the ground-line, trimming, and herbicide application. The herbicide is generally applied to the sections of line cleared the previous year, thereby extending the clearing cycle beyond what would normally be needed. The cooperative is also widening right of ways from twenty to thirty feet wide, wherever practical. These practices have allowed the cooperative to move to a five-year trim cycle, rather than a three-year cycle.

Problem trees outside the right of way or easement are handled on a case-by-case basis. Often a landowner will contact the cooperative, requesting danger tree removal. The cooperative's right of way foreman will investigate and facilitate the tree removal if it is feasible to do so. In other instances, problem trees are reported by cooperative employees or other persons, and the right of way foreman will attempt to obtain landowner permission to remove the problem tree. If permission is granted, the process is essentially the same as if the landowner reported the problem tree. The majority of the cooperative's system is rural, and the rural consumers are generally very supportive of the effort to remove the problem trees to help avoid power interruptions.

b) 2009 Vegetation Management

Okefenoke Rural Electric Membership Corporation uses 500 miles as a targeted annual goal for right of way trimming and clearing. For the year 2009, the cooperative actually cut and trimmed 500 miles of right of way. This equates to approximately 20 % of the cooperative's 2,512 miles of overhead distribution line. These numbers are on track for the cooperative's five-year trim cycle.

The PURC research group facilitated a vegetation management conference in March 2007. Okefenoke Rural Electric Membership sent representatives to this workshop. A few important points were taken away from the conference.

1. It is impractical to eliminate all tree-related outages during high-wind events such as hurricanes.
2. Communication with and education for the public on all aspects of vegetation management as it relates to reliable utility operations is crucial.
3. Adequate and consistent financial resources must be available for vegetation management programs to be successful.
4. There is a need for training, recruiting, and retaining highly qualified, skilled tree crews.
5. Utilities should continue to monitor and patrol critical distribution facilities such as major feeders and feeders that serve critical infrastructure.
6. Storm preparation and restoration logistics are critical to timely and effective storm recovery.
7. Cooperation between utilities and government at multiple levels is also important.

Okefenoke REMC will continue to consider these and other areas for improvement in its vegetation management processes and will participate in any future conferences or discussions concerning utility best practices.

Peace River Electric Cooperative, Inc.
P.O. Box 1310 • Wauchula, Fl. 33873 • (863) 773-4116 • www.preco.org

A Touchstone Energy® Cooperative

Engineering Fax: 863.767.4662

Florida Public Service Commission
c/o Tim Devlin, Director of Economic Regulation
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Re: Rule 25-60343, F.A.C.- Storm Hardening/Construction Standard Report

1) Introduction

   a) Peace River Electric Cooperative

   b) 210 Metheny Road, Wauchula, Florida, 33873

   c) Jerry Twiggs, Chief Operating Officer, 1-863-767-4602, jerry.twiggs@preco.coop

2) Number of meters : 32,880

3) Standards of Construction

Peace River Electric Cooperative is an RDUP (Rural Development Utility Program) borrower and as such our standards, practices and procedures are in compliance with construction regulations of the Federal government. One of the requirements of RDUP is that Peace River Electric Cooperative has construction standards in compliance with applicable rules in the National Electric Code.

   a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at Peace River Electric Cooperative comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

At this time, Peace River Electric Cooperative facilities are not designed to be guided by the extreme loading standards on a system wide basis. Peace River Electric Cooperative is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Electric Cooperative Association. We continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas. At this time we do not have sufficient data to substantiate the effort and cost of making major upgrades to our system. We feel that it is important to wait for the results of this research before making such a commitment and seeking approval from RDUP.

c) Flooding and Storm Surges

Peace River Electric Cooperative is in the process of evaluating our standards, policies, guidelines, practices and procedures that address the effects of flooding and storm surges on underground facilities and supporting overhead facilities. Peace River Electric Cooperative is participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of underground facilities in preventing storm damage and outages through the Florida Electric Cooperative Association. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research to justify the effort and cost of converting overhead to underground.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the Peace River Electric Cooperative provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that Peace River Electric Cooperative's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. Peace River Electric Cooperative decides, on a case-by-case basis, whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

e) Attachments by Others

The pole attachment agreements between Peace River Electric Cooperative and third-party attachers include language which specifies that the attacher, not the Cooperative, has the burden of assessing pole strength and safety before they attach to the pole. However, Peace River Electric Cooperative notifies attachers of non-compliance and when joint-use counts are performed by representatives of both parties also verify the attachments are properly installed and maintained.

4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

Peace River Electric Cooperative uses its best efforts to follow the guidelines including, but not limited to, planned inspection and maintenance programs outlined in RDUP bulletin 1730B-121. Peace River Electric Cooperative each calendar year monitors the process, guidelines and procedures to determine if changes are needed to improve our current program and to evaluate the results of our current inspection/treatment program. Under Bulletin 1730B-121, Peace River Electric Cooperative is located in Decay Zone 5 with a guideline of an initial inspection of 8-10 years and subsequent inspection of 8 years. Also, contained in the guidelines that if inspections indicate a low decay rate in certain areas of the system, the inspection can be adjusted accordingly; likewise, if the inspections in a certain area have a high decay rate, then the inspections would be adjusted accordingly in that area of our system.

Peace River Electric Cooperative, at the current time, has adopted a more aggressive inspection on transmission poles by having all 294 transmission poles inspection every two (2) years. However, as with distribution poles Peace River Electric Cooperative reviews, monitors and evaluates the current program on an annual basis. In addition, pole inspections will be conducted on 100% of Peace River Electric transmission poles in 2010

b) Describe the number and percentage of transmission and distribution inspections planned and completed.

The Cooperative has eighty-nine (89) concrete transmission poles, two (2) steel transmission poles and two hundred eighteen (218) wooden transmission poles. On a percentage basis, Peace River Electric Cooperative inspected the transmission poles in accordance with the two-year program outlined above.

Peace River Cooperative under the formal inspection program inspected 3371 wooden distribution poles, replaced 228 poles as a result of the formal pole inspection program and replaced 180 poles identified outside the formal inspection program. In calendar year 2009, the Cooperative had approximately 54,196 wooden distribution poles.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2008 and the reason for the failure.

Under RUS Bulletin 1730B-121, a pole is "serviceable" under the following conditions:

1. Large portion of completely sound wood exists
2. Early stages of decay which have not reduced the pole strengths below NESC requirements.
3. Pole condition is as stated in (1) or (2) but a defect in equipment may exist, such as a broken ground or loose guy wire. Equipment defects should be subsequently repaired.

If the pole does not meet the above conditions, the pole has failed the inspection and is classified as a reject.

Under the formal inspection program approximately, 3371 distribution poles were inspected and 228 poles were classified as rejects. The percentage of inspected poles requiring replacement under the formal pole inspection program was just above 6.7% percent.

Peace River Electric Cooperative did not replace a transmission pole either under the formal inspection program or identified outside the inspection program during the calendar year of 2009. Nevertheless a complete pole inspection will be conducted on transmission structures in 2010.

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2008, including a description of the remediation taken.

The number and percentage of poles rejected was provided in the previous answer.

The number of "serviceable poles" (number of poles inspected under the formal program and identified to have some decay) that did receive remediation as provided in RUS Bulletin 1730B-121. Under the formal inspection program 2599

Seminole Electric
COOPERATIVE, INC.
IN PARTNERSHIP WITH THOSE WE SERVE

March 10, 2010

Mr. Tim Devlin
Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

RE: FPSC Report Pursuant to Rule 25-6.0343 Calendar Year 2009

Dear Mr. Devlin:

Attached for your information is Seminole's response to the FPSC request for information concerning hardening of facilities. Although Seminole is a Generation and Transmission Cooperative, with no distribution facilities, we have replied to this survey.

Please contact me at (813) 739-1278 if you have any questions or concerns.

Sincerely,

Glenn a Spurlock

Glenn Spurlock
Manager of Substation and Transmission Engineering

CC: Robert L. McNamara
Jim Frauen
Glenn A. Spurlock

16313 North Dale Mabry Highway, Tampa, FL 33618
Telephone: 813-963-0994
Fax: 813-264-7906
Website: www.seminole-electric.com

Seminole Electric Cooperative, Inc.
Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1) Introduction

a) Name of utility: Seminole Electric Cooperative, Inc. (Seminole)

b) Address: 16313 North Dale Mabry Hwy., Tampa, FL 33618-2000

c) Contact information: Glenn Spurlock, Manager of Substation & Transmission Engineering
Voice: 813-739-1278
E-mail: gspurlock@seminole-electric.com

2) Number of customers served in calendar year 2009

Seminole serves zero (0) distribution end-use customers.

3) Standards of Construction

a) National Electric Safety Code Compliance

Seminole transmission and substation construction standards, policies, guidelines, practices, and procedures comply with the National Electrical Safety Code (NESC) and the Rural Utilities Services (RUS) guidelines in effect at the time of the facility's initial construction.

Seminole does not own or operate any distribution facilities.

b) Extreme Wind Loading Standards

Seminole transmission and substation construction standards, polices, guidelines, practices, and procedures are guided by the extreme wind loading standards specified by NESC-C2-2007 Section 25, 250C. *Extreme Wind Loading* and Figure 250-2(d) of the 2007 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares taking into account political and geographical boundaries and other applicable operational considerations. These standards require structures to withstand winds up to 120 mph[1] within Seminole's Transmission System.

Seminole does not own or operate any distribution facilities.

c) Flooding and Storm Surges on Distribution Facilities

Seminole does not own or operate any distribution facilities.

d) Safe and Efficient Access to New and Replacement Distribution Facilities

Seminole does not own or operate any distribution facilities.

e) Attachments by Others on Transmission and Distribution Facilities

- Seminole only has transmission attachments by its Member Owner, Clay Electric Cooperative, Inc., on the SGS-JXHT 230 kV transmission structures / facilities as per the original design of the transmission line. Seminole does not have any other attachments on any of the 230 kV transmission structures / facilities.
- Seminole has Member Owner distribution facilities on Seminole 69 kV transmission structures. AT&T and Galaxy Telecom, LP also have attachments on Seminole 69 kV transmission structures.
- Seminole does not own or operate any distribution facilities

[1] Existing infrastructure facilities in place before December 10, 2006 may be rated for less than 120 mph.

4. Facility Inspections on Transmission and Distribution Facilities

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

Seminole performs an inspection on all transmission structures every two years, or more often as decided by Seminole Staff. This inspection covers all steel, concrete, and wood structures on Seminole's Transmission System. Transmission structures are treated at ground level as necessary.

Seminole does not own or operate any distribution facilities.

b) Number and percentage of transmission and distribution inspections planned and completed for 2009.

Seminole has approximately 3,090 transmission structures (34 total transmission lines), which consist of steel, concrete, and wood structures. Seminole inspected all 34 transmission lines (100 %) in 2008, and will inspect all 34 transmission lines (100 %) by end of year 2010. No inspections were planned or completed in 2009.

Seminole does not own or operate any distribution facilities.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

To minimize the potential for future reliability issues, Seminole replaced one hundred and twenty-two (122 - 3.9 % of the Seminole total identified in section b) above) transmission structures in 2009 after inspections conducted in 2008 identified a combination of the following issues:

- Woodpecker damage
- Pole top wood rot damage

None of the above transmission structures were replaced as a result of failing an inspection. All one hundred and twenty-two (122) structures were replaced as part of a preventative measure to maintain the reliability of electric transmission service to Seminole's distribution Member Owners.

Seminole does not own or operate any distribution facilities.

d) **Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.**

2009 Seminole Transmission Structure Replacements after 2008 inspections:

Type	Height/Class	Quantity Replaced	% of Total Seminole Structures	Notes
Southern Pine Wood Pole	55/1	2	0.06 %	Replaced with 60/1 light-duty galvanized steel structures
Southern Pine Wood Pole	55/2	20	0.65 %	Replaced with 60/1 or 65/1 light-duty galvanized steel or concrete structures
Southern Pine Wood Pole	60/1	3	0.10 %	Replaced with equivalent light-duty galvanized steel or concrete structures
Southern Pine Wood Pole	60/2	7	0.23 %	Replaced with equivalent light-duty galvanized steel or concrete structures
Southern Pine Wood Pole	65/1	14	0.45 %	Replaced with 65/1 or equivalent light-duty galvanized steel or concrete structures
Southern Pine Wood Pole	65/2	3	0.10 %	Replaced with 65/1 or equivalent light-duty galvanized steel or concrete structures
Southern Pine Wood Pole	70/1	72	2.33 %	Replaced with equivalent light-duty galvanized steel or concrete structures
Southern Pine Wood Pole	70/2	1	0.03 %	Replaced with equivalent light-duty galvanized steel or concrete structures

Seminole does not own or operate any distribution facilities.

5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

Seminole's 230 kV transmission system rights-of-way (ROW) follow Seminole's Transmission Vegetation Management Program (TVMP), which includes, but is not limited to, an annual vegetation inspection, a problem tree removal program, and a 3-year cycle for herbicide application (primary vegetation management strategy).

The Seminole TVMP is sufficient as it meets all the North American Electric Reliability Corporation (NERC) FAC-003-1 Transmission Vegetation Management Program Requirements, and recently passed an audit conducted by the Florida Reliability Coordinating Council, Inc. (FRCC) and the NERC (September / October 2009).

The Seminole 69 kV Transmission System ROW are inspected every two years, or more often as decided by Seminole Staff as part of the transmission line inspection program described in section 4a). Problem tree removal and herbicide applications are utilized as determined by Seminole Staff and the individual Seminole Member Owner, whose territory the transmission line serves.

Seminole's method of inspection and vegetation management is effective on Seminole's mostly urban / roadside 69 kV transmission ROW, which is typically free of large woody species.

Seminole does not own or maintain any distribution right-of-ways.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

In 2009, Seminole planned and completed routine vegetation management work (herbicide applications) on approximately 124 miles of 230 kV transmission ROW, as per the objectives of the Seminole 2009 TVMP.

Seminole planned and completed inspections and non-routine vegetation management work (as necessary) on all 209 miles of 230 kV transmission ROW, as per the objectives of the Seminole 2009 TVMP.

No inspections were planned or completed for Seminole's approximately 140 miles of 69 kV transmission lines in 2009. Based on recommendations from the 2008 inspections, Seminole and its Member Owners completed vegetation management work on approximately 31 miles of 69 kV transmission ROW in 2009.

Seminole does not own or operate any distribution facilities.

6 Storm Hardening Research

Seminole does not own or operate any distribution facilities and therefore does not participate in any distribution Storm Hardening Research.

Existing Seminole transmission structures are designed for a maximum wind load of 90-120 mph as per the research data provided by the applicable NESC[1] and RUS documentation, and environmental data that was available when the transmission line was designed.

[1] See NESC-C2-2007 Section 25, 250C. *Extreme Wind Loading* and Figure 250-2(d).

SECO

Sumter Electric Cooperative, Inc.

February 26, 2010

Mr. Marshall Willis
Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Dear Mr. Willis:

On Friday, February 26, 2010 I emailed you the Sumter Electric Cooperative, Inc. (SECO) 2009 filing for the "Storm Hardening" initiatives pursuant to Rule 25-6.0343, F.A.C. This letter is a follow-up to that email.

As with the email, I have attached SECO's "Report to the Florida Public Service Commission" for calendar year 2009. The report details SECO's construction standards, inspection cycles, and vegetation management information for calendar year 2009. SECO was able to inspect all its facilities according to the prescribed cycle and met its vegetation management line clearing target for cycle trimming. SECO continues to place a high degree of emphasis on these programs and realizes the positive impact these programs make on the electric reliability of our system.

If you have any questions concerning the content of the report, please contact me via email at john.laselva@secoenergy.com or by phone at 352.793.3801 x1288.

Sincerely,

John J. LaSelva

John J. LaSelva
Director; Reliability & Operations

- Attachment -

Xc:
R. Ben Brickhouse, P.E. – SECO: Director; Engineering & IT
Michele L. Herschel – FECA: Director of Regulatory Affairs
William B. (Bill) Willingham – FECA: Executive V.P. and General Manager

A Touchstone Energy® Cooperative

PO Box 301, 330 South US Highway 301, Sumterville, FL 33585-0301, (352) 793-3801
15720 US Highway 441, Eustis, FL 32726-6561, (352) 357-5600
850 North Howey Road, Groveland, FL 34736-2234, (352) 429-2195
610 US Highway 41 South, Inverness, FL 34450-6030, (352) 726-3944
4872 SW 60th Avenue, Ocala, FL 34474-4316, (352) 237-4107

Sumter Electric Cooperative, Inc. (SECO) Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2009

1. *Introduction*

Sumter Electric Cooperative, Inc. (SECO)
P.O. Box 301
330 South US Highway 301
Sumterville, FL 33585-0301

Ben Brickhouse, Director of Engineer & IT
352-793-3801, x 1257

John LaSelva, Director of Reliability & Operations
352-793-3801, x 1288

2. *Number of meters served in calendar year 2009*

169,162 as of December 31, 2009

3. *Standards of Construction*

National Electric Safety Code Compliance

Sumter Electric Cooperative's design and construction standards follow RUS guidelines which are in compliance with the NESC. Construction standards, policies, guidelines, practices, and procedures at SECO comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

Extreme Wind Loading Standards

SECO transmission facilities are designed to be guided by the extreme loading standards on a system-wide basis. Our distribution facilities are designed to withstand 100 mph according to the 2002 NESC. SECO is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Electric Cooperative Association. We continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas. At this time we do not have sufficient data to substantiate the effort and cost of making major upgrades to our system. We feel that it is important to wait for the results of this research before making such a commitment.

Flooding and Storm Surges

Storm surge is not a consideration since SECO is a non-coastal utility. While we serve a coastal county (Citrus), the closest SECO facility is 14 miles inland. SECO began a voluntary inspection of our underground facilities in 2007. Through our contractor, Transformer Maintenance Services, SECO continues to inspect our underground facilities on an eight-year cycle. In 2009, SECO inspected 8% of its underground facilities equating to 3,711 structures. As a result of this inspection, 61 pad-mounted transformers and 100 secondary enclosures were replaced.

Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at SECO provide placement of new and replacement distribution facilities for safe and efficient access of installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that SECO's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. It is the policy of SECO to install electrical facilities on the front of lots, except those cases that are prohibited by land covenants. SECO decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available

Attachments by Others

Electrical construction standards, policies, guidelines, practices, and procedures at SECO include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. SECO inspects all new attachments to ensure guidelines have been properly followed. The SECO attachment agreement states that field audits can be performed every six years, with the most recent audit performed in 2007.

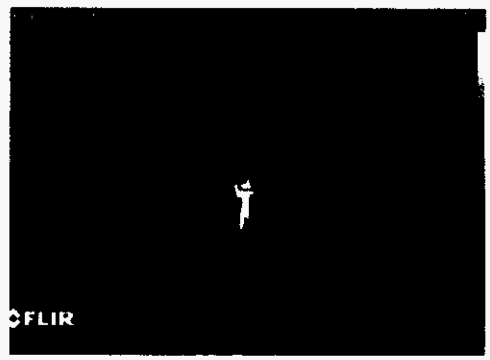
4. *Facility Inspections*

a) *Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.*

It is the policy and practice of SECO to inspect its facilities in order to maintain a safe and reliable electrical system. SECO inspects its transmission facilities, substation facilities, and distribution facilities on regular cycles.

Since the transmission system is most critical because it serves the majority of members per line, SECO implemented a policy of completing ground line and visual inspections every five years. The ground inspection includes sounding and boring tests, and excavation of all poles for treatment per RUS Bulletin 1730B-121. SECO utilizes Pole Maintenance Company (PMC) to perform these inspections. In 2009, PMC performed ground line and visual inspections on 287 poles. Additionally, SECO's power provider, Seminole Electric (SECI), conducted a visual inspection on 495 poles. This equates to 782 structures which is 56% of the transmission poles on the system. All transmission poles identified for replacement are exchanged with spun concrete poles. Beginning in 2010 SECO will perform an infrared inspection on the transmission lines twice per year in lieu of SECI's visual inspection.

The second most critical item in the electrical system is the substations. SECO conducts a monthly visual inspection at every substation. SECO also purchased two thermographic cameras for Substation Technicians to conduct monthly infrared inspections. This allows them to quickly diagnose a potential issue and resolve it, thus eliminating a substation outage to thousands of members.



The above transmission and substation infrared photos highlight SECO's thermographic inspection process. This proactive approach allows detection and change out before the device fails, thus eliminating customer outages.

In 2007 SECO began the policy and practice of performing a ground inspection on 100% of its distribution poles every eight years. The ground inspection included sound and boring tests as well as excavation of all poles for treatment per RUS Bulletin 1730B-121. However, in 2008, SECO modified its inspection process slightly. SECO will continue to inspect 100% of its distribution poles but on a differing cycle. SECO will selectively bore and excavate "Chromated Copper Arsenate (CCA)" preserved poles under the age of 16 years. SECO will continue to inspect non-CCA poles on an eight year cycle as well as those CCA poles in excess of 16 years of age. This is similar to the CCA inspection process followed by Florida Power & Light, Inc. (FPL), Progress Energy Florida (PEF), and Tampa Electric Company, Inc. (TECO) as described in FPSC Docket No. 080219-EI dated August 7, 2008.

b) *Describe the number and percentage of transmission and distribution inspections planned and completed for 2009.*

a. Transmission System
SECO completed 100% of the transmission pole inspections planned for 2009.
b. Distribution System
SECO completed 100% of the distribution pole inspection and 100% of our voluntary distribution underground equipment inspection.

Year	# of Structures – Planned Inspections	% of Total Structures	# of Structures – Actual Inspected	% Complete vs. Planned
2009 Transmission	782	56%	782	100%
2009 Overhead	14,813	11%	14,813	100%
2009 Underground	3,711	8%	3,711	100%

c) *Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2009 and the reason for the failure.*

Transmission and Distribution System

Year	System	# Failed	% Failed	Cause
2009	Transmission	94	12.0%	Woodpecker Holes
2009	Distribution	39	0.3%	Ground Rot
2009	Distribution	370	2.0%	Top Deterioration

d) *Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2009, including a description of the remediation taken.*

The following numbers for SECO represent the remediation by pole type for distribution poles. The remediation includes replacement of the pole. SECO completed all distribution pole and transmission pole remediation as of February 3, 2010.

Distribution Poles		
Pole Type and Class	**# Failed**	**% Remediation complete (as of 1/20/10)**
25/8	1	100%
30/6	113	100%
30/7	1	100%
35/5	15	100%
35/6	168	100%
35/7	2	100%
40/4	2	100%
40/5	88	100%
40/6	1	100%
45/3	1	100%
45/4	6	100%
45/5	10	100%
50/4	1	100%
Total	**409**	**100%**

Transmission Poles		
Pole Type and Class	**# Failed**	**% Remediation complete (as of 02/03/10)**
40/10K	1	100%
85/10K	1	100%
95/10K	50	100%
95/14K	1	100%
100/10K	25	100%
105/12.5K	16	100%
Total	**94**	**100%**

5. *Vegetation Management*

In 2009, SECO continued the Integrated Vegetation Management program to sustain a three year trimming cycle for transmission circuits and feeder (3 phase) circuits, with a six year cycle on lateral (1 & 2 phase) circuits. To meet these goals, SECO followed industry-wide best practices that include various combinations of unit based tree pruning, tree removal, and herbicide application.

2009 Results

In 2009 SECO trimmed 1,241 total circuit miles; of which were 508 miles of feeder trimming, 514 miles of lateral trimming, and 21 miles of transmission trimming. Throughout the 1,241 total circuit miles trimmed, SECO removed 29,161 trees which augment our storm hardening process.
The following table is a summary:

Description	Measurement
Distribution line miles "Maintenance Trimmed" per species growth rate (10 ft, 12 ft or 15 ft)	1,022 miles
Distribution line miles cut "Ground-to Sky" with 15 foot clearance on circuits for system improvement projects	60 miles
Reliability Service Order based hourly crew trimming	138 miles
Transmission line miles cleared "Ground-to Sky" with 30 foot clearance	21 miles
Total miles trimmed in 2009 (Distribution & Transmission)	1,241 miles
Total miles of herbicide application	1,220 miles
Total trees removed in maintenance trimming process	29,161 trees

Specifications and Procedures

The following are SECO's vegetation management policies, guidelines, and practices that were used as the standard in 2009:

- **Trimming Clearances**: Clearances are based on species growth rates to maintain a three-year trim cycle. Slow growth species are trimmed at 10 feet; medium growth species are trimmed at 12 feet; fast growth species are trimmed at 15 feet.

- **Pruning Practices**: SECO requires all vegetation management contractors to follow "SHIGO" and ANSI-A 300 industry standards and utilize directional pruning practices as often as practical. Adherence to these standards allow trees to remain healthy after pruning while reducing re-growth and crown failures that can cause storm related reliability issues.

- **New Construction / System Upgrade Trimming**: In 2009, SECO continued with its "Ground to Sky" trimming practice for all circuits that are newly constructed or significantly upgraded (re-conductored). These circuits are clear-trimmed at a 15 foot clearance with all underbrush is being removed

- **Work Planning**: SECO employs "Utility Arborist Resource Group, Inc. (ACRT)" to perform all work planning, customer notification and post work inspection. ACRT provides the completed work plans to SECO who then issues them to Nelson Tree Service (NTS) crews to complete the trimming.

- **Unit Price Contracting**: Nelson Tree Service, Inc. (NTS) performed all overhead line clearance work on the SECO system and was paid on a per-unit basis. This allowed SECO to accurately track work performed by type trim, removal, etc.

- **Vegetation Removal:** SECO continued to target the removal of trees that mainly fall in the 4"-10" diameter at breast height (dbh) range. This year NTS trimming crews completely removed 29,161 mature trees from distribution circuit easements representing 41% of the total 70,333 trees that were addressed for line clearance issues in 2009 . SECO also removes all brush from under its conductors. This prevents future tree growth and provides better access for restoration crews during major storm events.

- **Circuit Prioritization:** SECO's Vegetation Management staff determined the "Order of Cut" for 2009 by utilizing a formula that incorporated two weighted factors.

    - The number of Preventable (trimming related) outages on the circuit in 2008
    - The total number of customers / members served by the circuit

    SECO did not factor in Non-Preventable tree related outages into the equation since those trees were outside trim zones and would not have been trimmed or removed under SECO's specifications. Therefore, the formula for the order of cut is based on the following: *(Number of Preventable Outages) x (Number of Customers Served) = Order of Cut Priority*

- **Herbicide Program:** SECO continued its herbicide application program in 2009 utilizing Advanced Applicators Inc. (AAI) as its subcontractor to treat brush units cut by trimming crews in 2008. All feeder easements that were trimmed in 2008 were treated with herbicide in 2009.
- **Tree Replacement Program**: In 2009, SECO continued to offer a "Tree Replacement Program". In certain instances, SECO provided "utility friendly" trees to customers who allowed the removal of trees in close proximity to the conductors. During 2009, SECO purchased approximately 315 trees for customers in exchange for these strategic removals.

Program Enhancements

In addition to meeting cycle mileage goals, SECO continued successful focus in addressing the following issues:

- **Tree Planting Guidelines**: Proper tree selection and planting guidelines were communicated to customers thru SECO's web site, direct mailing and public events. In 2009 SECO was the first cooperative in Florida to earn the "Tree Line USA" designation for two consecutive years. In order to receive this prestigious award, SECO met strict requirements in maintaining quality tree care practices, employee training and public education programs.

- **Danger Tree Removal / Hazard Mitigation**: In 2009 SECO identified and removed 457 danger trees located outside of road right of ways and easements that posed an imminent threat to system reliability. ACRT contract arborists and SECO line inspection teams identified dead, leaning or diseased trees that could fall on distribution facilities throughout SECO's service territories. Once identified, the defective trees were removed by NTS trimming crews usually within 30 days.

Obstacles/Opportunities Ahead

In 2010 SECO will tackle several challenges outlined below:

- **Cost Control for Economic Downturn:** For the past two years SECO experienced a less than anticipated growth in new customer accounts with no change expected for 2010. Labor, material, fuel and equipment costs were on the rise and will continue throughout 2010. These cost factors directly impact our daily business operations. SECO's expectation is to improve the service reliability for our members, however with the current economic conditions we must seek to work smarter and more efficiently than ever before.

- **Resource Availability**: Since the Florida Public Service Commission (FPSC) has mandated revised tree trimming requirements for Investor Owned Utilities (IOUs) in Florida, the demand for professional tree trimmers continues to remain high. This demand has exhausted the available labor pool in Florida. Despite the high unemployment rate in Florida and in particular Central Florida, Nelson Tree Service Inc. (NTS), SECO's single source trimming contractor, is unable to secure a local labor force. NTS is forced to acquire the majority of their labor from out-of-state. This out-of-state labor pool is very fluid and very costly. To retain these employees, NTS must pay their out-of-state workers per-diem and expenses that are directly passed to SECO and its customers. This is a problem that SECO and other utilities across the state will continue to experience.

- **Green Initiatives**: There is a significant increase in county and city governments passing ordinances and laws that establish roadside beautification and preservation zones. These preservation areas limit SECO's ability to perform the required trimming and removals necessary to provide reliable service to our customers. These local ordinances and laws limit access and virtually eliminate trimming from occurring. This will increase costs for tree caused outages and lengthen restoration times.

- **Natural Disasters / Hurricanes:** With an active storm season predicted for 2010, potential hurricanes and tropical storms that make landfall in the continental United States could negatively impact production levels for crews performing cycle trimming on SECO distribution circuits.

2010 Vegetation Plan

SECO will continue to utilize its unit base trimming practices to meet its cycle trimming goals for 2010. The circuits scheduled will be prioritized based on facility type, tree related outages and customers impacted. This method insures circuits with the majority of customers experiencing the most tree related outages are trimmed first.

The successful identification and removal of dead, diseased, and unstable trees located within falling distance of energized circuits will remain a priority in SECO's 2010 Vegetation Management program. While it is uncertain how many of these trees exist, it is clear that the removal of these hazards will mitigate damages during moderate to extreme weather events.

Herbicide application will also continue on all circuit miles trimmed in 2009. An estimated 7.8 million square feet of manual and mechanically removed underbrush is scheduled to be planned by May of 2010 so that herbicide can be successfully applied throughout this year's growing season.

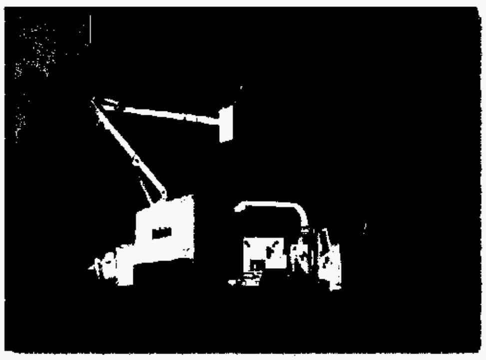
SECO has clearly demonstrated the highest level of commitment to storm harden its system through a comprehensive easement reclamation effort. Although there are obstacles to maintaining this innovative approach, SECO will continue to analyze its policies and procedures to determine the best course of action and seek improvement opportunities moving forward.

6. *Vegetation Program Segments*

Planning and Auditing Activities

SECO utilizes the services of ACRT, Inc. to plan and audit 100% of all trimming activities. They are responsible for all member contact and permission activities as well as the quality of work completed.

Trimming Activities



All SECO trimming work is performed by Nelson Tree Service, Inc. based on plans developed by ACRT. Nelson utilizes state-of-the-art equipment to ensure maximum effectiveness with minimal impact to our members.

Tree Replacement Program

Customers who choose removal of landscape trees in utility easements qualify for "utility friendly" replacement trees.

Herbicide Activities

SECO herbicide application contractors, Advanced Applicators Inc. utilize both low-volume backpack sprayers and larger scale vehicle-mounted equipment to apply selective herbicides within our easements and rights-of-way.

Outline for Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2010

1) **Introduction**

   a) **Suwannee Valley Electric Cooperative Inc.**

   b) **11340 100th St.**
   Live Oak, FL 32060

   c) **Contact information:** Kurt Miller, 386-330-5639, kurtm@svec-cop.com

2) **Number of meters served in calendar year 2009**

   24,618

3) **Standards of Construction**

   SVEC adheres to the U.S. Department of Agriculture Rural Utility Service construction standards.

   a) **National Electric Safety Code Compliance**

   Construction standards, policies, guidelines, practices, and procedures at the Suwannee Valley Electric Cooperative comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

   b) **Extreme Wind Loading Standards**

   At this time, Suwannee Valley Electric Cooperative facilities are not designed to be guided by the extreme loading standards on a system wide basis. Suwannee Valley Electric Cooperative is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Electric Cooperative Association. Though we continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas. At this time we do not have sufficient data to substantiate the effort and cost of making major upgrades to our system.

We feel that it is important to wait for the results of this research before making such a commitment.

c) Flooding and Storm Surges

Suwannee Valley Electric Cooperative is a non-coastal utility; therefore, storm surge is not an issue.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the Suwannee Valley Electric Cooperative provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that Suwannee Valley Electric Cooperative's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. Suwannee Valley Electric Cooperative decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

e) Attachments by Others

The pole attachment agreements between Suwannee Valley Electric Cooperative and third-party attachers include language which specifies that the attacher, not the cooperative, has the burden of assessing pole strength and safety before they attach to the pole. Suwannee Valley Electric Cooperative performs follow-up audits of attachments to ensure the attachment is properly installed and maintained per NESC and RUS standards.

4. Facility Inspections

a) Description of policies, guidelines, practices and procedures for inspection transmission and distribution lines, poles and structures including pole inspection cycles and pole selection process

Suwannee Valley Electric Cooperative inspects all structures every eight years. Inspection is followed up with the following as needed; treatment, repair, replacement. This work is performed in accordance with RUS standards and procedures.

b) Transmission and distribution inspections planned and completed

Inspection is two step process, visual evaluation of pole and all attached hardware and sound and bore. 2009; 10,015 inspections were completed representing 12% of system total distribution structures, 5 inspections were completed representing 100% of the system total of transmission structures. 2010: 10,500 inspections are planned representing 12% of system total distribution structures, 5 inspections are planned representing 100% of transmission structures.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

2009: 126 inspections of distribution structures failed representing 1.3% of inspections. 59% of these failures were due to groundline decay, and 41% from excessive splitting, 0 inspections of transmission structures failed.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

2009: 1,418 poles were remediated by ground line treatment representing 14% of total inspected distribution structures, 0 transmission structures were remediated. Ground line treatment is dig/excavate and/or bore/inject pole with RUS approved wood treating products. 84 poles were replaced representing 0.84% of total inspected.

5. Vegetation Management

b) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

Suwannee Valley Electric Cooperative inspects, cuts, and sprays all right-of- away every 5 years. Danger trees outside right-of-way are located and cut when permission is obtained from the land owner.

c) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

2009: 578 miles of right-of-away were cut representing 18% system right-of-away and 898 miles of right-of-away was sprayed. 2010: 650 miles of right-of-away are planned to be cut representing 20% system right-of-away and 578 miles of right-of-away are to be sprayed.

Talquin Electric Cooperative
Report to the Florida Public Service Commission
Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009
Submitted to Marshall Willis at mwillis@psc.state.fl.us

1) Introduction

   1) Name of cooperative – Talquin Electric Cooperative, Inc.

   2) Address, street, city, zip – 1640 W. Jefferson Street, Quincy, Florida 32351-5679

   3) Contact information: Bobby Kimbro, P. E.
   Director of Engineering & Operations Services
   Phone # 850-627-7651
   Fax # 850-627-2553
   Email: bkimbro@talquinelectric.com

2) Number of meters served in calendar year 2008: 52,778

3) Standards of Construction

   a) National Electric Safety Code Compliance & Rural Utilities Services Standards

Construction standards, policies, guidelines, practices, and procedures at the Talquin Electric Cooperative comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

   b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the Talquin Electric Cooperative are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for:

a) New construction.
b) Major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006.
c) Targeted critical infrastructure facilities and major thoroughfares.

c) Flooding and Storm Surges

Only a very, very small percentage of Talquin Electric Cooperative's service area includes areas subject to storm surge. Talquin evaluated our standards, policies, guidelines, practices and procedures that address the effects of flooding and storm surges on underground facilities and supporting overhead facilities. Talquin Electric Cooperative is participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Electric Cooperative Association. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research to justify the effort and cost of converting overhead to underground. Some measures that have already been made include the installation of grounding sleeves to further secure underground switching cabinets. Talquin is investigating the use of anchor systems to further strengthen our padmount transformers. There were no storm surges to test the new anchoring system in 2009. These stronger anchoring systems should reduce the damage and power outages caused by storm surges along the coast.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the Talquin Electric Cooperative provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that Talquin Electric Cooperative's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. Talquin Electric Cooperative decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available, based on Talquin's ability to secure easements from associated property owners.

e) Attachments by Others

Talquin Electric is in the process of updating our pole attachment agreements between Talquin Electric and third-party attachers to include language which specifies that the attacher, not the cooperative, has the burden of assessing pole strength and NESC compliance and be certified by an engineer before they attach to the pole. After the attachment has been made, the third-party's engineer will certify that the work has been inspected and built according to the NESC standards. Talquin Electric and the third-party attacher will jointly inspect these attachments on a regular basis within a five (5) year cycle.

4) Facility Inspections

a) Talquin Electric Cooperative inspects the transmission lines annually checking the pole, hardware and conductors. An outside pole-treating contractor inspects distribution &

transmission poles each year. For year 2007 and beyond, poles will be inspected on an eight-year rotation.

b) Talquin Electric Cooperative inspected 8,279 poles in 2009, which included 187 transmission poles. All the poles that were scheduled to be inspected in 2009 were inspected in 2009.

c) There were fifty-three (53) distribution poles rejected for a total of 0.60% of the distribution poles inspected. Six (6) of the rejected poles were rejected for decay. In 2008 Talquin Electric Cooperative had six (6) transmission poles rejected out of 187 poles that were inspected. Of the 8,279 distribution poles inspected 53 were rejected including 47 rejected poles and 6 priority poles. The percentage of rejected poles in 2008 was 0.60%. The priority poles were replaced with new poles and the rejected poles were inspected and repaired if possible or replaced if not.

d) When replacing 30 class 7 poles in the future, Talquin is installing stronger 35 class 6 poles.

e) Talquin has an independent engineering consulting firm to perform inspections on its new and existing line construction on a quarterly basis.

f) Talquin performs monthly inspections on its substation facilities to insure that any needed maintenance is performed. Talquin has contracted for infrared inspections to be performed at its substations and lines to insure that any weak connections are detected and repaired before outages occur.

g) In the past, Talquin has hired a helicopter contractor to ride its transmission lines to detect any problems that could not be detected from the ground. This contractor is available on an as need basis for future inspections and storm restoration.

5) Vegetation Management

a) Talquin Electric Cooperative maintains its right of ways by mechanical cutting, herbicide applications and mowing. Talquin utilizes a variety of contractors and some in-house crews to maintain its rights of way. Talquin continues to increase the miles of right of way that is trimmed as we strive to achieve a three (3) year inspection & trimming cycle. The Cooperative uses the RUS bulletin for right of way maintenance and local governmental rules to perform this clearance. Talquin Electric Cooperative has substantially increased its right of way budget for 2008 and 2009 as compared to 2007. The budget was increased from $2,132,000 in year 2007 to $3,820,000 in year 2008 and 3,500,297.36 in year 2009 with the goal of accomplishing its trimming cycles goals to minimize outages to our members and harden our system from storms.

b) Talquin Electric Cooperative performed right of way maintenance on 669.5 miles of line in 2009, which represents 15% of Talquin's overhead lines. The routine right of way maintenance was in addition to responding to approximately 1,200 member request for tree maintenance.

The PURC research group held a vegetation management conference in March 2007. Talquin Electric Cooperative gained useful information from this conference as experiences and lessons learned were shared by all participants. Talquin sent a team of employees to the conference to learn new vegetation management techniques for implementation. In addition, a R.O.W. Supervisor attended a vegetation and right of way training conference in Smarr, Georgia.

Talquin is making a significant investment in mapping technology to improve power reliability. Talquin is taking the necessary measures to strengthen our system in preparation for the high winds that are associated with hurricanes and tropical storms.

Tri-County Electric Cooperative, Inc.
Storm Hardening Report to the Florida Pub Service Commission
Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2009

1. Introduction:

a) Tri-County Electric Cooperative, Inc.

b) Mailing Address: Post Office Box 208
Madison, Florida 32341-0208

Physical Address: 2862 West US 90
Madison, Florida 32340

c) Contact Information:

1. H. Julius Hackett
General Manager
Phone: (850) 973-2285 Extension 201
Cell: (850) 869-0003
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2. V. Wayne Bass
Manager of Engineering
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Cell: (850) 973-0058
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Email wbass@tcec.com

3. Darrell R. Tuten
Manager of Operations
Phone: (850) 973-2285 Extension 219
Cell: (850) 973-0578
Fax: (850) 973-6884
Email: dtuten@tcec.com

4. George L. Webb
Manager of Finance and Administration
Phone: (850) 973-2285 Extension 217
Cell: (850) 973-0416

Fax: (850) 973-1209
Email: gwebb@tcec.com

2. Number of meters served in calendar year 2009

Tri-County Electric Cooperative provided electric service to 17,608 for the reporting period ending December 31, 2009. Those meters were located within Tri-County Electric Cooperative's service territory, which consists of Madison, Jefferson and Taylor Counties and the northern portion of Dixie County in the State of Florida.

3. Standards of Construction

Tri-County Electric Cooperative has followed the standards, policies, guidelines, practices and procedures set forth by the Rural Utilities Service (RUS), previously known as the Rural Electrification Administration (REA) since the Cooperative was organized in the early 1940's. Tri-County Electric Cooperative's main construction standards are those set forth in the following bulletins: (1) REA Bulletin 1728F-803 "Specifications and Drawings for 24.9/14.4 kV Line Construction", (2) REA Bulletin 1728F-804 "Specifications and Drawings for 12.47/7.2 kV Line Construction", (3) REA Bulletin 1728F-806 "Specifications and Drawings for Underground Electric Distribution" (4) REA Form 805 "Electric Transmission Specifications & Drawings", (5) RUS Bulletin 1728F-810 "Electric Transmission Specifications and Drawings 34.5 kV through 69 kV."

a) National Electric Safety Code Compliance

The RUS construction bulletins are updated as required to stay in compliance with the National Electric Safety Code (ANSI C-2) (NESC). However, Tri-County Electric Cooperative considers the standard in the NESC as well as the standards in the National Electric Code (NEC) to be the minimum standards and Tri-County Electric Cooperative has worked to exceed minimum standards. Proper clearance and safety, especially the public's safety, has and is a main focal point for Tri-County Electric Cooperative.

1. Tri-County Electric Cooperative's construction crew leaders inspect every new job as well as two (2) adjacent spans in each direction before leaving the job site for any NESC or NEC code violations. If violations are found, they are corrected at that time. The

Cooperative Foreman inspects all primary voltage construction completed by Tri-County Electric's construction personnel. Tri-County Electric's Contract Supervisor inspects all work completed by outside contracting personnel. All distribution lines are inspected annually.

2. After the job is completed, Tri-County Electric Cooperative employs a third party engineering firm to inspect and verify that all new construction jobs are built to RUS standards and free of code violations. Inspections are completed as per the RUS Bulletin with inspections completed quarterly. If NESC or NEC code violations are noted, Tri-County Electric Cooperative corrects the violations before the Professional Engineer certifies the work order report (RUS Form 219), which is sent to RUS in Washington, D.C.

3. Tri-County Electric Cooperative sends a quarterly report of the jobs completed to the Florida Public Service Commission (FPSC). The FPSC selects the jobs to be inspected and provides Tri-County Electric Cooperative with a list of the jobs. If the inspector notes any violations, Tri-County Electric Cooperative is notified and the violations are corrected.

b) Extreme Wind Loading Standards

1. Tri-County Electric Cooperative constructs Class B construction when crossing railroads, limited access highways and interstate highways. However, we have begun to institute Class B construction in congested areas for safety reasons. These heavier demand loads along with the desire to build larger capacity, which will withstand heavier wind loading as, specified in the NES tables for ice and wind loading will cause all critical infrastructure facilities to be examined to see if an increase to Class B construction is needed and can be justified.

c) Flooding and Storm Surges

1. Tri-County Electric Cooperative has reviewed its standards, policies and procedures relating to the effects of flooding and storm surges on underground facilities and supporting overhead structures. We will consider modifications to our process upon completion and review of the research data, which is being compiled by the Public

Utility Research Center's study in conjunction with the Florida Electric Cooperative Association.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

1. Tri-County Electric Cooperative's construction standards, policies and procedures provide for the installation of new facilities and the replacement and maintenance of existing distribution facilities. In addition, the same standards, policies and procedures provide efficient access by Tri-County Electric Cooperative's personnel and vehicles for installation and maintenance as safely and quickly as possible. Tri-County Electric Cooperative decides on a case-by-case basis if the relocation of facilities is warranted. If Tri-County Electric Cooperative determines facilities need to be relocated, then the facilities are placed in the most accessible area available.

e) Attachments by Others

1. Tri-County Electric Cooperative utilizes Joint Pole Use Attachment Agreements, which includes language specific to Tri-County Electric Cooperative's construction, policies, guidelines, practices and procedures but not limited to safety, pole reliability as well as engineering safety guidelines and procedures. Currently Tri-County Electric Cooperative is reviewing and updating its Joint Use Agreements, attachment procedures and costs.

4. Facility Inspections

a) Description of policies, guidelines, practices and procedures for inspection transmission and distribution lines, poles and structures including pole inspection cycles and pole selection process.

1. Tri-County Electric Cooperative's distribution poles are inspected on an eight-year inspection cycle by a third party contractor to perform both ground line and visual inspection. The poles are being treated with MP400-EXT, which is a formulation of preservative paste for decay control, and MITC-FUME, which is a fumigant, applied to protect against strength loss due to internal decay and/or insect strikes. This treatment application treats existing conditions and prevents future problems.

2. Tri-County Electric Cooperative visually inspects two 69 kV transmission lines located in Dixie and Taylor County, Florida, owned by Seminole Electric Cooperative, Inc., and a 115 kV transmission line owned by Tri-County Electric Cooperative located in Madison County, Florida, each year. We utilize an outside pole inspection contractor to perform both ground line and visual inspections. The poles are being treated with MP400-EXT, which is a formulation of preservative paste for decay control, and MITC-FUME, which is a fumigant, applied to protect against strength loss due to internal decay and/or insect strikes. This treatment application treats existing conditions and prevents future problems. The 69 kV transmission lines in Dixie and Taylor County were inspected over the course of the 2008/2009 calendar year. Tri-County Electric Cooperative inspected the 115 kV transmission line located in Madison County during 2009. There were six (6) of the 114H-Frame structures noted in the 2009 inspection that were replaced with steel instead of wood which equaled a rejection rate of 5.3%.

3. Tri-County Electric Cooperative's employees visually inspect our distribution lines as they go about their daily tasks. Tri-County Electric Cooperative utilizes an outside pole inspection firm to perform ground inspection on our distribution poles. Tri-County Electric Cooperative has typically utilized an eight-year inspection cycle. This inspection is in addition to those performed by FPSC personnel on select construction jobs as well as the quarterly inspection performed by Tri-County Electric Cooperative's third-party engineering firm for new construction jobs.

b) Transmission and distribution inspections planned and completed.

1. Tri-County Electric Cooperative maintains a 69 kV transmission line, which is 1.7 miles in length, located in Dixie County, Florida, and a 69 kV transmission line, which is 16.4 miles in length, located in Taylor County, Florida. These two lines are owned by Seminole Electric Cooperative, Inc., but are maintained by Tri-County Electric Cooperative. Tri-County Electric Cooperative has a 115 kV transmission line located in Madison County, Florida. We visually inspect all three lines annually. Tri-County Electric Cooperative's employees will continue to patrol the distribution lines as they go about their daily work, in conjunction with the annual inspection of all distribution lines. There were nine (9) poles found during the 2009 inspection of the 69 kV transmission lines, which had to be replaced.

c) **Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.**

1. Tri-County Electric Cooperative contracts pole line inspectors to check our distribution and transmission poles at the ground line. Tri-County Electric Cooperative's pole inspection program is on an eight-year cycle. Over the course of 2008 and 2009, Tri-County Electric Cooperative inspected the poles on four substations. There were 10,056 poles inspected with 795 poles rejected for a rejection rate of 7.9%.

d) **Number and percentage of transmission poles and structures and distribution and class of structure, replaced or for which remediation was taken after inspection, including a description of remediation taken.**

1. Tri-County Electric Cooperative changed-out approximately 250 poles during 2009. A new contract was awarded for 795 poles to be replaced over the next 12-month period. As we prepare for future work plans, (Tri-County Electric Cooperative's current work plan covers the period of 2007 through 2010), the loads in the slow growing rural areas such as those served by Tri-County Electric Cooperative are requiring larger conductors, shorter span lengths and larger class poles.

5. Vegetation Management

a) **Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation practices are sufficient.**

b) **Quantity, level and scope of vegetation management planned and completed for transmission and distribution facilities.**

Tri-County Electric Cooperative's operation procedures and practices for vegetation management are as follows:

1. Tri-County Electric Cooperative attempts to acquire right-of-way easements 30-foot wide when constructing three-phase facilities. If

only a 20-foot wide right-of-way easement can be obtained, then narrow profile construction is considered.

2. On new single-phase construction, a 20-foot wide easement is desired with a 10-foot wide easement as the minimum standard. If a 10-foot easement cannot be obtained then an alternate route is required.

3. Of the 3,100 miles of distribution right-of-way, Tri-County Electric Cooperative's right-of-way contractor crew cut approximately 430 miles of right-of-way. The right-of-way removal concentrated on areas with the heaviest tree coverage with targeted goals of widening the tree overhang.

4. Tri-County Electric Cooperative offers replacement trees as a way of negotiating with landowners in the right-of-way removal process.

5. Tri-County Electric Cooperative's current right-of-way practices have been sufficient in the past based on our outage records per annual consumer hours off. Our reliability indices meet and exceed RUS guidelines.

6. Tri-County Electric Cooperative began an herbicide-spraying program in July 2009.

West Florida Electric Cooperative Association, Inc.

A Touchstone Energy® Cooperative

P.O. Box 127
Graceville, FL 32440-0127
(850) 263-3231
Florida Toll Free: 1-800-342-7400
Web Address: www.wfeca.net

P.O. Box 37
Bonifay, FL 32425-0037
(850) 547-9325
P.O. Box 1100
Sneads, FL 32460-1100
(850) 593-6491

March 12, 2010

Tim Devlin, Director of Economic Regulations
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, Fl. 32399-0850

Dear Mr. Devlin,

Please find enclosed WFEC's 2009 Storm Hardening/Constructions Standard Report along with our reliability data.

Sincerely,

Ty Peel, Vice President
Engineering and Operations
West Florida Electric Cooperative

West Florida Electric Cooperative, Inc. Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2009

1) West Florida Electric Cooperative (WFEC) is a non-profit Touchstone Energy® Cooperative owned by its members and locally operated. WFEC serves approximately 28,000 meters, providing dependable electricity and other services at competitive prices in Calhoun, Holmes, Jackson and Washington Counties in Northwest Florida.

Established in 1937, WFEC is headquartered at 5282 Peanut Road in Graceville, Fla., and maintains district offices in Bonifay, and in Sneads. WFEC's service area is divided into nine districts, each represented by a member-elected trustee

WFEC receives wholesale power from PowerSouth Energy Cooperative, Inc. a generation and transmission cooperative, based in Andalusia, Ala. PowerSouth is wholly owned by WFEC and the 19 other distribution cooperatives and municipalities it serves in Alabama and in Northwest Florida. Two WFEC delegates, along with representatives from PowerSouth's other member systems, participate in the management of PowerSouth's policies, rules, and regulations and the establishment of rates, terms and conditions affecting the wholesale power supply.

West Florida Electric Cooperative, Inc.
5282 Peanut Road
P.O. Box 127
Graceville, Fl 32440

Contacts:

Ty Peel	or	Keith Varnum
5282 Peanut Road		5282 Peanut Road
Graceville, Fl 32440		Graceville, Fl 32440
850-263-3231 ext 1105		850-263-3231 ext 1194
Cell 850-415-0901		Cell 850-326-0661
e-mail tpeel@westflorida.coop		e-mail kvarnum@westflorida.coop

2) The number of meters served in calendar year 2009 was 27909

3) Standards of Construction

1) National Electric Safety Code Compliance:
Construction standards, policies, guidelines, practices, and procedures at WFEC comply with the National Electrical Safety Code (ANSI-C2) current edition, USDA RUS Bulletin 1728F-803 Specifications and Drawings for 24.9/14.4 Line Construction and USDA RUS Bulletin 1728-806 Specifications and Drawings for Underground Electric Distribution. Ten (10) percent of all construction is randomly sampled and inspected by a third party engineering consulting firm. Results of inspections are reported to the USDA Rural Utilities Service and to WFEC's Staff Engineer, Also FPSC staff randomly samples and inspects a portion of

construction. In both cases, corrections, if any, are made and the Staff Engineer provides feedback to construction crews and staking technicians to ensure Compliance.

2) Extreme Wind Loading Standards
WFEC complies with the current edition of the NESC particularly 250c Extreme Wind Loading (with Figure 252-2(d) and 250d Extreme Ice with Concurrent Wind Loading.

3) Flooding and Storm Surges
West Florida Electric Cooperative, Inc. is a non-coastal utility; therefore, storm surge is not an issue. Some areas in WFEC's territory are subject to flooding, however, past flooding had little effect on the system. In these areas, line design is modified to compensate for known flooding conditions.

4) Safe and Efficient Access of New and Replacement Distribution Facilities:
Electrical construction standards, polices, guidelines, practices, and procedures at West Florida Electric Cooperative, Inc. provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that West Florida Electric Cooperative, Inc.'s facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. West Florida Electric Cooperative, Inc. decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available. All underground facilities are designed with loop feeds. Safety is determined by NESC (current edition) guidelines and common sense.

5) Attachments by Others
Electrical construction standards, policies, guidelines, practices, and procedures at West Florida Electric Cooperative, Inc. include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's distribution poles. Quarterly pole line inspections are done for newly constructed jobs. The inspections encompass all pole line construction criteria. General inspections are currently done on an eight year cycle.

4) Facility Inspections

1) West Florida Electric Cooperative, Inc. utilizes RUS Bulletin 1730B-121 as its guideline for a continuing program of pole maintenance and inspection. During the 2009 year West Florida Electric Cooperative, Inc. inspected 14% of its system. Out of the 14% inspected 7% required maintenance or replacement.
2) N/A
3) N/A
4) Number of distribution poles is less than 1% of total.

5) Vegetation Management

1) West Florida Electric Cooperative, Inc. has a very aggressive vegetation management program which encompasses ground to sky side trimming along with mechanical mowing and tree removal. West Florida Electric Cooperative, Inc. intends to mow and side trim one fourth of its distribution system each year. Out of that number approximately 17% is three phase distribution circuits with the remainder being single phase circuits.

West Florida Electric Cooperative
Outage Information for 2009

SAIDI Per Day Last Updated:	1/14/2010
Threshold Last Updated:	1/14/2010
SAIDI Per Day Threshold for 2009:	15.5895
Number of Major Event Days in 2009	2

	Major Event Day	Number of Outages	SAIDI/Day
View	3/28	90	34.4552
View	6/14	83	16.4391

West Florida Electric Cooperative
Yearly Outage Information for 2009
Outage Data Actual

Total Number of Customers Served	27,909
Total Number of Consumer Hours	92,008.87
Total Number of Consumer Minutes	5,520,532
Total Number of Customers Affected	49,919
CAIDI - Customer Average Interruption Duration Index	110.59
SAIDI - System Average Interruption Duration Index	197.80
SAIFI - System Average Interruption Frequency Index	1.79
Outage Event Duration for All Outage Events	3,323.13
Divided by Total Number of Service Interruptions	2,270
L-Bar	1.46

West Florida Electric Cooperative
Outage Data without Major Event Days

Number of Major Event Days	2
Total Number of Consumer Hours	68,335.38
Total Number of Consumer Minutes	4,100,123
Total Number of Customers Affected	43,473
CAIDI - Customer Average Interruption Duration Index	94.31
SAIDI - System Average Interruption Duration Index	146.91
SAIFI - System Average Interruption Frequency Index	1.56
Outage Event Duration for All Outage Events	2,789.73
Divided by Total Number of Service Interruptions	2,097
L-Bar	1.33

WITHLACOOCHEE
RIVER
ELECTRIC
COOPERATIVE, INC.

February 15, 2010

Tim Devlin, Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Mr. Devlin:

Enclosed please find two (2) reports. The first is our annual description of existing construction standards as required by PSC 25-6.043. It is our belief that this report is as accurate as we can reasonably make it and it reflects our policies and procedures very closely.

The second document is statistical information related to our systems' service reliability. Our engineering department has compiled the numbers from our Outage Management System and, again, we believe that it is very concise.

If you have questions or if you will require further information, please contact us.

Sincerely,

Duane Vann
Assistant General Manager

RECEIVED
FEB 19 2010
Florida Public Service Commission
Division of SSC

P.O. Box 278, Dade City, FL 33526-0278 Phone (352) 567-5133 / Fax (352) 521-5971

Monday, February 15, 2010

PSC 25 – 6.0343
Municipal Electric Utility and Rural Electric Cooperative Reporting Requirements

Withlacoochee River Electric Cooperative, Inc.
P.O. Box 278
Dade City, FL 33526-0278
352-567-5133
Billy E. Brown, Executive V.P. & General Manager

1) *Number of meters served in calendar year 2009*

   216,738

2) *Standards of Construction*

   a) *National Electric Safety Code Compliance*

      All electrical facilities constructed by Withlacoochee River Electric Cooperative, Inc. on or after February 1, 2007, will comply with the 2007 edition of the NESC; facilities constructed prior to this date comply with the edition in effect at the time of the initial construction.

      Withlacoochee River Electric Cooperative's (WREC) Specifications and Drawings for 14.2/24.9 KV Overhead and Underground Distribution Line Construction are based on RUS bulletins, drawings and engineering specifications. All of those specifications meet or exceed the requirements of the National Electrical Safety Code (ANSI C-2) [NESC]. Due to the nature of capital funding from the Department of Agriculture (RUS), WREC is held accountable to a very comprehensive set of Federal guidelines (including the NESC). A Construction and Operations Manual was created and distributed to all line crews, supervisors, and

other affected employees. Lines, cables and related equipment are installed and maintained according to these manuals, and both are used in the training program registered with the State of Florida. All field staking technicians have been trained in, and have access to, software that verifies NESC construction compliance. This PoleForeman software is based on specific WREC design templates that include framing guides and corresponding material specifications. The program will calculate strength capabilities and clearances of specified spans, and compare results to the minimum NESC requirements (Grade C, B and Extreme Wind Loading).

b) Extreme Wind Loading Standards

WREC facilities are not designed to be guided by the "extreme wind loading standards" on a system wide basis. However, most new construction, major planned work assigned on or after December 10, 2006 and targeted critical infrastructure meets design criterion that comply with standards of construction for the wind loading projections in our service area. The NESC extreme wind loading standards are being considered for major distribution feeders. The difficulty in this consideration is the impact of joint use facilities. The concept of allowing joint use of overhead electrical distribution facilities is beneficial to all concerned, including the resulting pricing efficiencies for all affected Customers. Allowing multiple or large diameter cable attachments makes compliance with the extreme wind loading standards economically and aesthetically impractical due to the drastic reduction of span lengths.

c) Flooding and Storm Surges

Storm surge effects on WREC's underground distribution facilities and supporting structures have been evaluated and for several years all pad mounted equipment, transformers, switchgear, etc., is specified with stainless steel construction. This requirement helps mitigate the need for premature replacement due to coastal erosion and high surge salt water intrusion.

We will continue to monitor all relative studies through the Florida Electric Cooperative Association and we will adjust our design standards accordingly. We strongly believe that it is essential to maintain current practices until we are able to thoroughly evaluate the results of current studies so that a cost/benefit can be established for conversion of overhead to underground.

All underground system designs include conduit installation for all primary and secondary cables, to both lengthen the life of the cable and shorten replacement times.

Additionally, WREC was the first Cooperative in the U.S. to receive RUS approval for

cost capitalization of the rehabilitative "cable-cure" process. This process prolongs the useful life of the cable and drastically reduces outages associated with cable failures. EPR (Ethylene-Propylene-Rubber) insulated cable is used exclusively for all underground primary distribution installations. Compared to standard cross-linked polyethylene insulation, EPR has a proven superior life span. All primary cables are also fully jacketed and strand-filled for additional long term reliability.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

In 2009 WREC relocated approximately 50,000 feet of overhead primary lines from rear lot lines to the street, changing out hundreds of older poles and facilities. This practice will continue until all of the older areas have been upgraded.

e) *Attachments by Others*

All joint use attachment requests are evaluated on a case by case basis. Joint use companies send a written request to attach to WREC's poles. Each request is evaluated as to loading and clearance requirements per the NESC and PoleForeman software (referenced in 3(a) above). WREC has extensive written and signed joint use agreements on file with each joint use company that specify compliance with the NESC and Rural Utilities Services (RUS) requirements, specifications and drawings. Such items as placing, transferring, or rearranging attachments, erecting, replacing, or relocating poles are specifically addressed to meet all requirements as per the NESC and RUS.

4. *Facility Inspections*

a) *Description of policies, guidelines, practices and procedures for inspection transmission and distribution lines, poles and structures including pole inspection cycles and pole selection process.*

WREC utilizes well over 250 full time personnel to constantly monitor conditions and we are continuously developing realistic practices to evaluate the integrity and condition of our system as a whole. The group mentioned here consists of a combination of Operations and Engineering employees who are charged with the duty of line patrols while in the normal course of their daily work. Additionally, circuits and line segments having decreased performance are identified through data obtained with our Outage Management System and specific inspections are assigned accordingly. Annually, thousands of Service Orders are completed, processed, and the appropriate corrective action is taken.

With over 7,000 miles of overhead primary distribution lines, a considerable portion of WREC's system is physically checked annually according to the following methods:

Line Patrol	**340 Miles**
Voltage Conversion	**280 Miles**
Right-of-Way	**2430 Miles**
S.T.A.R. [1]	**720 Miles**
Total	**4,930 Miles (Approximate numbers)**

b) *Transmission and distribution inspections planned and completed*

WREC owns and maintains fifty-three miles of transmission line with voltages of 69KV and 115KV.

All of the transmission feeders are patrolled annually by walking, riding or aerial patrol. An intense aerial patrol that included detailed infra-red inspections of every pole, switch, and connection on the system was conducted after it was exposed to tropical storm and hurricane force winds in 2004.

Distribution lines inclusive of lateral taps and services are annually inspected according to procedures described in the response to question (4. a) above.

[1] Strategic Targeted Action and Repair. Selected areas of our system are targeted for intense line maintenance and repair according to information obtained by various methods including customer service issues, service interruption data, etc.

c.) *Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.*

Distribution poles are visually inspected at the time line inspections are performed. Additionally, poles are visually inspected, including sounding and checking below ground level, during voltage conversion and maintenance programs; subsequently changed out as necessary.

WREC utilized a contractor (OSMOSE) for pole inspection and treatment during 2003-2004. They found 6.2% pole rot and 1.0% pole rejection. A decision was made at that time to discontinue that type of inspection/treatment plan, due to the fact that the majority of our wooden poles are CCA, having a life expectancy well in excess of 20 years, with no known instances of ground line decay. The poles with older treatments are being systematically changed out.

Data is unavailable on exact failure rates. WREC is systematically changing out all of the wood poles treated with anything other than CCA through an aggressive voltage conversion program, relocation of rear lot line facilities, and routine system maintenance. Several polymer distribution poles have been installed throughout the system in an effort to test what appears to be emerging changes to the wood pole philosophy.

d) *Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.*

Attached is a summary of size/class of distribution/transmission poles installed and removed in 2009. (Detailed data is not available)

5. *Vegetation Management*

a) *Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.*

A very aggressive Vegetation Management Program (VMP) has been adopted over the last couple of years that is inclusive of problem tree removal, increased horizontal and vertical clearances and under-brushing to

ground level (See attached pictures). The overall goal is to eventually have the entire system on a well documented trim cycle with problem circuits/areas clearly identified enabling a proactive right of way program.

WREC fully understands the objectives of the PSC with respect to a three year trim cycle, but WREC has in fact implemented measures to extend trim cycles; *not shorten trim cycles*. The ultimate objective is to control vegetation growth before it causes line related problems. WREC feels this will be accomplished through the VMP and by well documenting vegetation growth/trim cycles for every transmission and distribution line segment. The thought process is by extending clearances, trim periods are extended. Certainly, desired clearances are not always obtainable, but these problem areas are being identified, monitored and addressed as needed. The VMP was implemented in early 2004 as a five-six year program with respect to addressing the entire system, but provides reduced right of way related line problems as each circuit is addressed.

WREC maintains over 150 overhead feeder circuits (over 7,000 miles of line). The current trim cycle is between three and four years. A few feeders, due to the type of soil conditions, have been cut more often because of a faster growth rate in those particular areas. Specific areas, according to customer service issues, outage reports and other statistics are trimmed in spots (Hot Spotted).

Data relevant to right of way issues is extracted from our outage management system (OMS) for prioritizing circuit trimming. When circuit trimming is performed all lateral taps and services are trimmed. Additional right of way issues are identified by line patrols, employees, contractors and consumers. Whenever the company is notified of any right of way issue a "service order" is initiated. During 2009 WREC addressed 2,614 right of way service orders ranging from trimming a single account to trimming an entire subdivision/area.

b) *Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.*

All transmission lines are inspected annually and associated right of way issues are considered top priority and addressed immediately. No right of way issues were found during our 2009 transmission line patrols.

RU	Description	Added	Retired
F085	POLES,CONCRETE 60'	1	0
F110	POLES,WOOD,70 FT	0	2
F120	POLES,WOOD,75'	0	1
F135	POLES,CONCRETE,80 FT.	0	0
F145	POLES,CONCRETE, 85 FT.	1	0
F155	POLES,CONCRETE, 90 FT.	1	0
F178	POLE, CONCRETE 105' DE 50-90D	1	0
F184	POLE, CONCRETE 115 ANG 15-30D	2	0
F268	POLES, STTEL 120' DE 50-90D	1	0
F320	POLE CONCRETE 100-103 TNG 0-5D	1	0
F322	POLES CONCRETE 110' TANG 0-5D	3	0
F340	POLE CONCRETE 110-113 TNG0-15D	8	0
F342	POLE CONCRETE 110 ANG 5-15D	1	0
1066	POLES, FIBERGLASS 50 FT	14	1
1068	POLES, FIBERGLASS, 60 FT	2	0
1070	POLES,WOOD,35'& UNDER	642	1925
1080	POLES,WOOD,40'& 45'	1574	1378
1090	POLES,WOOD,50'& OVER	938	129
1100	POLES,CEMENT,35'& UNDER	1	0
1110	POLES,CEMENT,40'& 45'	15	10
1120	POLES,CEMENT 50FT.	4	1
1122	POLES,WOOD 60FT	16	3
1124	POLES,WOOD 65 FT	0	2
1127	POLES,CONCRETE 80 FT	1	0
8085	POLES,FIBERGLASS	27	21
8090	POLES,WOOD,35'& UNDER	308	191
8100	POLES,CONCRETE,35'& UNDER	173	71
8105	POLES,CONCRETE,35' & UNDER (B)	76	1
8118	POLES, ALUMINUM 12'	35	23
8119	POLES,ALUMINUM, 15'	27	2
8130	POLES,WOOD,40'& 45'	3	1
8135	POLES,CEMENT,40'& 45'	25	0
		3901	3762

Pole Data for 2009