

City of Bartow
Storm Hardening Report to the Florida Public Service Commission Pursuant
to Rule 25-6.0343, F.A.C.
Calendar Year 2013

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
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2) Number of meters served in calendar year 2013

11,225

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 2013.**

In 2013, the City planned to inspect 1,500 facilities, approximately one eighth of our system. At the completion of this inspection period, we had inspected 1,657 poles which places us ahead of our proposed 1,500 poles per year target. Total poles inspected during this 8 year cycle number 9,868. Considering our targeted 1,500 inspections annually over the past six years we are currently 868 poles inspected above and beyond our cycle goals.

- c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2013 and the reason for the failure.**

Of the 1,657 inspections completed, 526 distribution poles, or approximately 32 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 2013, 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 4.5 year tree trimming cycle. We 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 2013.**

We feel that a 4 year trimming cycle would be more effective for reliability purposes. We are currently planning on contracting additional line clearance personnel to get us on a 4 year cycle. This along with other vegetation management practices mentioned in 5a are and will be effective in offering great reliability to our customers for now and for years to come. Also, the Public Utility Research Center held two vegetation management

workshops in 2007 & 2009. Through FMEA, the City of Bartow has a copy of their reports and will use the information to continually improve vegetation management practices. We will participate in future best-practice workshops if there is interest.

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 2-13-13 thru 2-27-14

<u>Facility ID</u>	<u>Pole Length/Class</u>	<u>Pole Type</u>	<u>Remediation</u>
10625	30/5	Southern Pine	Replaced
7447	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
4952	30/5	Southern Pine	Replaced
4951	30/5	Southern Pine	Replaced
9482	30/5	Southern Pine	Replaced
9489	30/5	Southern Pine	Replaced
8563	30/5	Southern Pine	Replaced
9467	30/5	Southern Pine	Replaced
8629	30/5	Southern Pine	Replaced
8622	30/5	Southern Pine	Replaced
7677	30/5	Southern Pine	Replaced
8517	30/5	Southern Pine	Replaced
8568	30/5	Southern Pine	Replaced
8569	30/5	Southern Pine	Replaced
9420	30/5	Southern Pine	Replaced
8535	30/5	Southern Pine	Replaced
NN	30/5	Southern Pine	Replaced
NN	30/5	Southern Pine	Replaced
9494	30/5	Southern Pine	Replaced
8581	30/5	Southern Pine	Replaced
8523	30/5	Southern Pine	Replaced
8577	30/5	Southern Pine	Replaced
8579	30/5	Southern Pine	Replaced
9595	30/5	Southern Pine	Replaced
4206	30/5	Southern Pine	Replaced
7415	30/5	Southern Pine	Replaced
9624	30/5	Southern Pine	Replaced
NN	30/5	Southern Pine	Replaced
7578	30/5	Southern Pine	Replaced
7579	30/5	Southern Pine	Replaced
4865	30/5	Southern Pine	Replaced
NN	30/5	Southern Pine	Replaced
4831	30/5	Southern Pine	Replaced
4888	30/5	Southern Pine	Replaced
7249	30/5	Southern Pine	Replaced
5683	30/5	Southern Pine	Replaced
NN	30/5	Southern Pine	Replaced
7966	30/5	Southern Pine	Replaced
7921	30/5	Southern Pine	Replaced
7936	30/5	Southern Pine	Replaced
9037	30/5	Southern Pine	Replaced
9040	30/5	Southern Pine	Replaced

10624	35/4	Southern Pine	Replaced
7201	35/4	Southern Pine	Replaced
9297	35/5	Southern Pine	Replaced
9296	35/5	Southern Pine	Removed
7927	35/5	Southern Pine	Replaced
1105	35/5	Southern Pine	Replaced
5275	35/5	Southern Pine	Replaced
5275	35/5	Southern Pine	Replaced
5529	35/5	Southern Pine	Replaced
5764	35/5	Southern Pine	Replaced
5205	35/5	Southern Pine	Replaced
4954	35/5	Southern Pine	Replaced
303	35/5	Southern Pine	Replaced
304	35/5	Southern Pine	Replaced
8554	35/5	Southern Pine	Replaced
8557	35/5	Southern Pine	Replaced
9278	35/5	Southern Pine	Replaced
9283	35/5	Southern Pine	Replaced
1696	35/5	Southern Pine	Replaced
7806	35/5	Southern Pine	Replaced
NN	35/5	Southern Pine	Replaced
6558	35/5	Southern Pine	Replaced
6531	35/5	Southern Pine	Replaced
7248	35/5	Southern Pine	Replaced
5686	35/5	Southern Pine	Replaced
5692	35/5	Southern Pine	Replaced
1125	35/5	Southern Pine	Replaced
7204	35/5	Southern Pine	Replaced
7241	35/5	Southern Pine	Replaced
1780	35/5	Southern Pine	Replaced
1934	35/5	Southern Pine	Replaced
7242	35/5	Southern Pine	Replaced
343	35/5	Southern Pine	Replaced
9853	35/5	Southern Pine	Replaced
9858	35/5	Southern Pine	Replaced
9860	35/5	Southern Pine	Replaced
997	40/4	Southern Pine	Replaced
321	40/4	Southern Pine	Replaced
7337	40/4	Southern Pine	Replaced
9438	40/4	Southern Pine	Replaced
344	40/4	Southern Pine	Replaced
1882	40/4	Southern Pine	Replaced
7808	40/4	Southern Pine	Replaced
437	40/4	Southern Pine	Replaced
10286	40/4	Southern Pine	Replaced
1193	40/5	Southern Pine	Replaced
9660	40/5	Southern Pine	Replaced
331	40/5	Southern Pine	Replaced

7928	40/5	Southern Pine	Replaced
4837	40/5	Southern Pine	Replaced
7277	40/5	Southern Pine	Replaced
5271	40/5	Southern Pine	Replaced
5208	40/5	Southern Pine	Replaced
5294	40/5	Southern Pine	Replaced
5204	40/5	Southern Pine	Replaced
1893	40/5	Southern Pine	Replaced
322	40/5	Southern Pine	Replaced
1109	40/5	Southern Pine	Replaced
1170	40/5	Southern Pine	Replaced
9434	40/5	Southern Pine	Replaced
1206	40/5	Southern Pine	Replaced
1158	40/5	Southern Pine	Replaced
1468	40/5	Southern Pine	Replaced
7830	40/5	Southern Pine	Replaced
354	40/5	Southern Pine	Replaced
270	40/5	Southern Pine	Replaced
7232	40/5	Southern Pine	Replaced
6771	40/5	Southern Pine	Replaced
7452	40/5	Southern Pine	Replaced
324	40/5	Southern Pine	Replaced
342	40/5	Southern Pine	Replaced
7553	40/5	Southern Pine	Replaced
7543	40/5	Southern Pine	Replaced
339	40/5	Southern Pine	Replaced
345	40/5	Southern Pine	Replaced
5926	40/5	Southern Pine	Replaced
453	40/5	Southern Pine	Replaced
452	40/5	Southern Pine	Replaced
5901	40/5	Southern Pine	Replaced
440	40/5	Southern Pine	Replaced
1786	40/5	Southern Pine	Replaced
9036	40/5	Southern Pine	Replaced
1997	45/3	Southern Pine	Replaced
1353	45/4	Southern Pine	Replaced
9243	45/4	Southern Pine	Replaced
9293	45/4	Southern Pine	Replaced
12894	45/4	Southern Pine	Replaced
1373	45/4	Southern Pine	Replaced
5984	45/4	Southern Pine	Replaced
10412	45/4	Southern Pine	Replaced
7331	45/5	Southern Pine	Replaced
7332	45/5	Southern Pine	Replaced
9030	45/5	Southern Pine	Replaced