

**City of Bartow**  
**Storm Hardening Report to the Florida Public Service Commission Pursuant**  
**to Rule 25-6.0343, F.A.C.**  
**Calendar Year 2014**

**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  
Interim Assistant Director of Electric Utilities  
Phone: (863) 534-0142, Fax (863) 534-7196  
Email: culverhouse.electric@cityofbartow.net

**2) Number of meters served in calendar year 2014**

11,423

**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 2014.**

In 2014, the City planned to inspect 850 facilities, less than one eighth of our system. At the completion of this inspection period, we had inspected 848 poles which completes the last of our first eight year cycle. Total poles inspected during this 8 year cycle number 10,716.

- c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2014 and the reason for the failure.**

Of the 848 inspections completed, 148 distribution poles, or approximately 17 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 2014, 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 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 2014.**

We feel that a 4 year trimming cycle is effective for reliability purposes. We are currently contracting additional line clearance personnel to keep 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](mailto:bmoline@publicpower.com).

## City of Bartow Pole Replacement Report

Poles Replaced 2-28-14 thru 2-17-15

<u>Facility ID</u>	<u>Pole Length/Class</u>	<u>Pole Type</u>	<u>Remediation</u>
4269	30-5	Southern Pine	Replaced
4259	30-5	Southern Pine	Replaced
6454	30-5	Southern Pine	Replaced
12714	30-5	Southern Pine	Replaced
12711	30-5	Southern Pine	Replaced
12715	30-5	Southern Pine	Replaced
3726	30-5	Southern Pine	Replaced
3262	35-5	Southern Pine	Replaced
5427	35-5	Southern Pine	Replaced
10975	35-5	Southern Pine	Replaced
10974	35-5	Southern Pine	Replaced
3782	35-5	Southern Pine	Replaced
3550	35-5	Southern Pine	Replaced
777	35-5	Southern Pine	Replaced
3174	35-5	Southern Pine	Replaced
3465	35-5	Southern Pine	Replaced
3576	35-5	Southern Pine	Replaced
3566	35-5	Southern Pine	Replaced
3517	35-5	Southern Pine	Replaced
4904	35-5	Southern Pine	Replaced
3217	35-5	Southern Pine	Replaced
915	35-5	Southern Pine	Replaced
917	35-5	Southern Pine	Replaced
10732	35-5	Southern Pine	Replaced
864	40-3	Southern Pine	Replaced
10773	40-4	Southern Pine	Replaced
12688	40-4	Southern Pine	Replaced
153	40-4	Southern Pine	Replaced
916	40-4	Southern Pine	Replaced
3930	40-5	Southern Pine	Replaced
3639	40-5	Southern Pine	Replaced
1434	40-5	Southern Pine	Replaced
205	40-5	Southern Pine	Replaced
5475	40-5	Southern Pine	Replaced
4176	40-5	Southern Pine	Replaced
3830	40-5	Southern Pine	Replaced
87	40-5	Southern Pine	Replaced
3876	40-5	Southern Pine	Replaced
3809	40-5	Southern Pine	Replaced
3896	40-5	Southern Pine	Replaced
3810	40-5	Southern Pine	Replaced
12680	40-5	Southern Pine	Replaced
12696	40-5	Southern Pine	Replaced

12694	40-5	Southern Pine	Replaced
12648	40-5	Southern Pine	Replaced
12646	40-5	Southern Pine	Replaced
12644	40-5	Southern Pine	Replaced
12643	40-5	Southern Pine	Replaced
12682	40-5	Southern Pine	Replaced
12686	40-5	Southern Pine	Replaced
12690	40-5	Southern Pine	Replaced
12847	40-5	Southern Pine	Replaced
12846	40-5	Southern Pine	Replaced
12842	40-5	Southern Pine	Replaced
12859	40-5	Southern Pine	Replaced
12858	40-5	Southern Pine	Replaced
12856	40-5	Southern Pine	Replaced
12855	40-5	Southern Pine	Replaced
12854	40-5	Southern Pine	Replaced
12852	40-5	Southern Pine	Replaced
12850	40-5	Southern Pine	Replaced
12654	40-5	Southern Pine	Replaced
12655	40-5	Southern Pine	Replaced
3545	40-5	Southern Pine	Replaced
3544	40-5	Southern Pine	Replaced
14007	40-5	Southern Pine	Replaced
1352	40-5	Southern Pine	Replaced
700	40-5	Southern Pine	Replaced
12827	40-5	Southern Pine	Replaced
3220	40-5	Southern Pine	Replaced
66	40-5	Southern Pine	Replaced
69	40-5	Southern Pine	Replaced
3521	40-5	Southern Pine	Replaced
70	40-5	Southern Pine	Replaced
65	40-5	Southern Pine	Replaced
67	40-5	Southern Pine	Replaced
68	40-5	Southern Pine	Replaced
NN	40-5	Southern Pine	Replaced
3478	40-5	Southern Pine	Replaced
2036	40-5	Southern Pine	Replaced
3533	40-5	Southern Pine	Replaced
3570	40-5	Southern Pine	Replaced
10724	40-5	Southern Pine	Replaced
10726	40-5	Southern Pine	Replaced
7444	40-5	Southern Pine	Replaced
726	40-5	Southern Pine	Replaced
1729	40-5	Southern Pine	Replaced
3297	40-5	Southern Pine	Replaced
3633	40-5	Southern Pine	Replaced
7355	40-5	Southern Pine	Replaced
12736	40-5	Southern Pine	Replaced
1794	40-5	Southern Pine	Replaced
10736	40-5	Southern Pine	Replaced
913	40-5	Southern Pine	Replaced

48	45-4	Southern Pine	Replaced
12699	45-4	Southern Pine	Replaced
12695	45-4	Southern Pine	Replaced
12822	45-4	Southern Pine	Replaced
3760	45-4	Southern Pine	Replaced
4642	45-4	Southern Pine	Replaced
12733	45-4	Southern Pine	Replaced
12845	45-5	Southern Pine	Replaced
3553	45-5	Southern Pine	Replaced
79	45-5	Southern Pine	Replaced
3784	45-5	Southern Pine	Replaced
3850	45-5	Southern Pine	Replaced
2334	45-5	Southern Pine	Replaced
10648	45-5	Southern Pine	Replaced
12835	50-3	Southern Pine	Replaced