

City of Bartow
Storm Hardening Report to the Florida Public Service Commission Pursuant
to Rule 25-6.0343, F.A.C.
Calendar Year 2016

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

Roger Murphy
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2) Number of meters served in calendar year 2016

11,868

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 September 1, 2016, the 2017 NESC applies. Electrical facilities constructed prior to September 1, 2016, 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 as specified in the 2017 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 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 2016.

In 2016, the City planned to begin round two of our eight year inspection cycle by inspecting 1346 facilities, approximately one eighth of our system. At the completion of this inspection period, we had inspected 1346 poles which is one hundred percent completion of our goal.

- c) **Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2016 and the reason for the failure.**

Of the 1346 inspections completed, 260 distribution poles, or approximately 19 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 2016, 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 2016.**

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 Amy Zubaly, Interim Executive Director, FMEA, 850-224-3314, ext. 7, or azubaly@publicpower.com.

City of Bartow Pole Replacement Report

Poles Replaced - Calendar Year 2016

Facility ID	Pole Length/Class	Pole Type	Remediation
12128	30-5	Southern Pine	Replaced
9240	30-5	Southern Pine	Replaced
1564	30-5	Southern Pine	Replaced
13107	30-5	Southern Pine	Replaced
8729	30-5	Southern Pine	Replaced
7589	30-5	Southern Pine	Replaced
NN	30-5	Southern Pine	Replaced
12825	30-5	Southern Pine	Replaced
8061	30-5	Southern Pine	Replaced
10420	30-5	Southern Pine	Replaced
8234	30-5	Southern Pine	Replaced
12983	30-5	Southern Pine	Replaced
9274	30-5	Southern Pine	Replaced
3350	30-5	Southern Pine	Replaced
3145	30-5	Southern Pine	Replaced
3111	30-5	Southern Pine	Replaced
3152	30-5	Southern Pine	Replaced
7155	30-5	Southern Pine	Replaced
7130	30-5	Southern Pine	Replaced
12671	30-5	Southern Pine	Replaced
12675	30-5	Southern Pine	Replaced
12129	35-5	Southern Pine	Replaced
4099	35-5	Southern Pine	Replaced
7520	35-5	Southern Pine	Replaced
636	35-5	Southern Pine	Replaced
6652	35-5	Southern Pine	Replaced
10962	35-5	Southern Pine	Replaced
13083	35-5	Southern Pine	Replaced
12672	40-5	Southern Pine	Replaced
10121	40-5	Southern Pine	Replaced
10122	40-5	Southern Pine	Replaced
10124	40-5	Southern Pine	Replaced
1831	40-5	Southern Pine	Replaced
1239	40-5	Southern Pine	Replaced
10053	40-5	Southern Pine	Replaced
1652	40-5	Southern Pine	Replaced
10056	40-5	Southern Pine	Replaced
2291	40-5	Southern Pine	Replaced
1865	40-5	Southern Pine	Replaced

1986	40-5	Southern Pine	Replaced
1938	40-5	Southern Pine	Replaced
12673	40-5	Southern Pine	Replaced
1756	40-5	Southern Pine	Replaced
561	40-5	Southern Pine	Replaced
1844	45-4	Southern Pine	Replaced
8802	45-4	Southern Pine	Replaced
8803	45-4	Southern Pine	Replaced
10264	45-4	Southern Pine	Replaced
10263	45-4	Southern Pine	Replaced
1466	45-4	Southern Pine	Replaced
1465	45-4	Southern Pine	Replaced
7684	45-4	Southern Pine	Replaced
1603	45-4	Southern Pine	Replaced
11738	45-4	Southern Pine	Replaced
11735	45-4	Southern Pine	Replaced
11723	45-4	Southern Pine	Replaced
11636	45-4	Southern Pine	Replaced
11756	45-4	Southern Pine	Replaced
4136	45-4	Southern Pine	Replaced
NN	45-4	Southern Pine	Replaced
12496	45-4	Southern Pine	Replaced
1273	45-4	Southern Pine	Replaced
10495	45-4	Southern Pine	Replaced
1670	45-4	Southern Pine	Replaced
12826	45-4	Southern Pine	Replaced
10199	45-4	Southern Pine	Replaced
10439	45-4	Southern Pine	Replaced
10421	45-4	Southern Pine	Replaced
495	45-4	Southern Pine	Replaced
918	45-4	Southern Pine	Replaced
1199	45-4	Southern Pine	Replaced
3053	50-3	Southern Pine	Replaced
5795	50-3	Southern Pine	Replaced