City of Bartow Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2015

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 2015

11,659

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 2015.

In 2015, the City finalized our eight year inspection cycle by inspecting 848 facilities. This ended up being a combined 2014/2015 effort as we started the process in December 2014 and finished January 2015. These inspections were completed prior to the submittal of the 2014 report therefore these numbers were reflected in that report as well. At the completion of our first eight year cycle, total poles inspected/treated numbered 10,716.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2015 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-ofways 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 2015.

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 <u>bmoline@publicpower.com</u>.

City of Bartow Pole Replacement Report Poles Replaced - Calendar Year 2015*

Facility ID	Pole Length/Class	Pole Type	Remediation
12670	30-4	Southern Pine	Replaced
12665	30-4	Southern Pine	Replaced
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12714	30-5	Southern Pine	Replaced
NN	30-5	Southern Pine	Replaced
12711	30-5	Southern Pine	Replaced
10736	30-5	Southern Pine	Replaced
10734	30-5	Southern Pine	Replaced
10735	30-5	Southern Pine	Replaced
NN	30-5	Southern Pine	Replaced
NN	30-5	Southern Pine	Replaced
NN	30-5	Southern Pine	Replaced
12631	30-5	Southern Pine	Replaced
12732	30-5	Southern Pine	Replaced
12311	30-5	Southern Pine	Replaced
12352	30-5	Southern Pine	Replaced
7006	30-5	Southern Pine	Replaced
7060	30-5	Southern Pine	Replaced
111/3	30-5	Southern Pine	Replaced
10662	30-5	Southern Pine	Replaced
10675	30-5	Southern Pine	Replaced
3966	30-5	Southern Pine	Replaced
12830	30-5	Southern Pine	Replaced
12829	30-5	Southern Pine	Replaced
3636	30-5	Southern Pine	Replaced
NN	30-5	Southern Pine	Replaced
6759	30-6	Southern Pine	Replaced
3637	30-7	Southern Pine	Replaced
3631	30-7	Southern Pine	Replaced
3217	35-5	Southern Pine	Replaced
915	35-5	Southern Pine	Replaced
917	35-5	Southern Pine	Replaced
3793	35-5	Southern Pine	Replaced
3836	35-5	Southern Pine	Replaced
3882	35-5	Southern Pine	Replaced
195	35-5	Southern Pine	Replaced
194	35-5	Southern Pine	Replaced
12633	35-5	Southern Pine	Replaced
12666	35-5	Southern Pine	Replaced
12634	35-5	Southern Pine	Replaced
6375	35-5	Southern Pine	Replaced
3729	35-5	Southern Pine	Replaced
3300	35-5	Southern Pine	Replaced
NN	35-5	Southern Pine	Replaced

NN	35-5	Southern Pine	Replaced
916	40-4	Southern Pine	Replaced
6710	40-4	Southern Pine	Replaced
963	40-4	Southern Pine	Replaced
7355	40-5	Southern Pine	Replaced
1729	40-5	Southern Pine	Replaced
3297	40-5	Southern Pine	Replaced
3633	40-5	Southern Pine	Replaced
12736	40-5	Southern Pine	Replaced
1794	40-5	Southern Pine	Replaced
12736	40-5	Southern Pine	Replaced
3806	40-5	Southern Pine	Replaced
196	40-5	Southern Pine	Replaced
3327	40-5	Southern Pine	Replaced
3410	40-5	Southern Pine	Replaced
3168	40-5	Southern Pine	Replaced
314	40-5	Southern Pine	Replaced
315	40-5	Southern Pine	Replaced
3295	40-5	Southern Pine	Replaced
1320	40-5	Southern Pine	Replaced
3634	40-5	Southern Pine	Replaced
3734	40-5	Southern Pine	Replaced
895	40-5	Southern Pine	Replaced
42	40-5	Southern Pine	Replaced
43	40-5	Southern Pine	Replaced
4271	40-5	Southern Pine	Replaced
4222	40-5	Southern Pine	Replaced
2080	40-5	Southern Pine	Replaced
12313	40-5	Southern Pine	Replaced
12353	40-5	Southern Pine	Replaced
6708	40-5	Southern Pine	Replaced
10676	40-5	Southern Pine	Replaced
964	40-5	Southern Pine	Replaced
3674	40-5	Southern Pine	Replaced
49	40-5	Southern Pine	Replaced
3703	40-5	Southern Pine	Replaced
29	40-5	Southern Pine	Replaced
3627	40-5 40-5	Southern Pine	Replaced
0472	40-5	Southern Pine	Replaced
903	40-5	Southern Pine	Replaced
2120	40-5	Southern Pine	Replaced
3247	40-5 40 5	Southern Dine	Replaced
12902	40-5	Southern Pine	Replaced
12304	40-0	Southern Dine	Renloced
003	40-5 10-5	Southern Ding	Replaced
993 14004	40-0 10-5	Southern Ding	Replaced
3008	40-5	Southern Dine	Replaced
3427	40-5	Southern Pine	Replaced
3656	40-5	Southern Pine	Replaced
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3706	40-5 40-5	Southern Pine	Replaced
3/1/	40-5	Southern Dine	Replaced
3140	40-5	Southern Pine	Replaced
3630	40-5	Southern Pine	Replaced
11186	45-3	Southern Pine	Replaced
12733	45-4	Southern Pine	Replaced
3415	45-4	Southern Pine	Replaced
4517	45-4	Southern Pine	Replaced
31	45-4	Southern Pine	Replaced
3245	45-4	Southern Pine	Replaced
35	45-4	Southern Pine	Replaced
3073	45-4	Southern Pine	Replaced
41	45-5	Southern Pine	Replaced
3500	45-5	Southern Pine	Replaced
38	45-5	Southern Pine	Replaced
3529	45-5	Southern Pine	Replaced
3510	45-5	Southern Pine	Replaced
37	45-5	Southern Pine	Replaced
3135	45-5	Southern Pine	Replaced
3540	45-5	Southern Pine	Replaced
3673	45-5	Southern Pine	Replaced
51	45-5	Southern Pine	Replaced
3983	45-5	Southern Pine	Replaced
8302	50-3	Southern Pine	Replaced
3291	50-3	Southern Pine	Replaced
3375	50-3	Southern Pine	Replaced
11182	50-4	Southern Pine	Replaced

* Small percentage of overlap in order to reflect 2015 calendar year.