

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 2017

1) Introduction

- a) City of Green Cove Springs

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

- c) Contact information:

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2) Number of meters served in calendar year 2017

4,160

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, 2012, the 2012 NESC applies. Electrical facilities constructed prior to February 1, 2012, 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 Coe Springs are 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 Green Cove Springs 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

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.

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 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. All facilities are installed so that City facilities are accessible by its 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) 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 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 4.1 kV conversion to 13.2 kV on a portion of our system which was completed in 2017.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2017.

We visually inspect any distribution pole we interface with under normal maintenance work flow patterns. In 2012, we began an internal inspection program and inspected 595 poles. In 2013 we inspected another 584 poles. In 2014 we inspected 225 poles on our 4.1 kV system in preparation for a voltage conversion to 13.2 kV as well as 192 poles during routine work. In 2015 we inspected 190 poles during routine work. In 2016 and 2017 during our 4kV conversion we replaced 70 poles and inspected over 100 poles as part of our routine maintenance work. In 2017 into 2018 we have initiated a 3rd party inspection of over 1,000 poles. By the end of 2018 we expect over 98 percent of our poles will have been inspected.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2017 and the reason for the failure.

In 2017, we replaced five wooden poles due to rot, or 6%, based on visual 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 in 2017, including a description of the remediation taken.

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

Two (2) 40 ft. Class 3 Wood poles replaced due to rot.

One (1) 45 ft. Class 3 Wood poles replaced due to rot.

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 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.

Beginning in October 2017 the City allocated an additional \$35,000.00 for tree trimming of our transmission lines along US 17.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2017.

100% of our system three-phase primary circuits were trimmed in 2017. Storm-related cleanup and laterals were trimmed by City crews as time allowed. The scheduled trimming cycle for 2017 began January 1, 2017. The Public Utility Research Center has held two vegetation management workshops in 2007 and 2009. Through FMEA, The City of Green Cove Springs 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 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.