

Utilities Commission, City of New Smyrna Beach
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
Utilities Commission, City of New Smyrna Beach

- b) Address, street, city, zip
200 Canal Street
New Smyrna Beach, Florida 32168

- c) Contact information:
Miguel Rodriguez, Director Electric Operations
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<mailto:mrodriguez@ucnsb.org>

2) Number of customers served in calendar year 2016

The Utilities Commission City of New Smyrna Beach served an average of 27,340 customers during 2016 calendar year.

3) Standards of Construction

a) National Electric Safety Code Compliance

The Utilities Commission City of New Smyrna Beach construction standards, policies, guidelines, practices, and procedures comply with the National Electrical Safety Code (ANSI C-2) (NESC)) applicable at the time of facilities installation. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction. Electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. The Utilities Commission City of New Smyrna Beach practice is to adopt the latest revision of the NESC.

b) Extreme Wind Loading Standards

The Utilities Commission City of New Smyrna Beach construction standards, policies, guidelines, practices, and procedures are guided by the extreme wind loading standards specified by latest edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006.

The Utilities Commission City of New Smyrna Beach is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

c) Flooding and Storm Surges

The Utilities Commission City of New Smyrna Beach construction standards, policies, guidelines, practices, and procedures are constantly being monitored to determine how installation practices and the rate payers will be impacted by the effects of hardening for flooding and storm surges.

We only install stainless steel dead front pad mounted transformers in our system. Additionally, all major planned work, including expansion, rebuild, relocation or replacement of existing pad mounted transformer installations are being upgraded to our standard of dead front stainless steel transformers. We have installed and are planning to continue the practice of installing stainless steel dead front completely sealed pad mounted switchgear where economically feasible.

The Utilities Commission City of New Smyrna Beach is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of underground facilities in preventing storm damages and outages through the Florida Municipal Electric Association.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

The Utilities Commission City of New Smyrna Beach construction standards, policies, guidelines, practices, and procedures provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

Whenever possible, easements are secured from private property owners for the installation of required new and/or relocated facilities. If easements are not secured, facilities are installed in the public right of ways. The standard installation of new underground facilities is cable in conduit with stainless steel transformers and switchgear. Areas with existing underground facilities that require upgrades are installed following present underground design standards.

e) Attachments by Others

The Utilities Commission City of New Smyrna Beach has existing pole attachment agreements with joint users. We have enforced the latest NESC guidelines to proposed new attachments requests recently received. We have performed stress pole calculations and if attachments are found to potentially overload the existing facilities, facilities are upgraded or the project reengineered.

We have revised our attachment agreements to include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric distribution poles. Normally, joint use attachments are not permitted on our transmission poles.

4. Facility Inspections

- a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

The Utilities Commission City of New Smyrna Beach is contracted with Osmose Utilities Services to inspect all transmission and distribution poles and structures as part of our eight year inspection program.

Additionally, distribution facilities are inspected as part of our normal maintenance when patrolling distribution feeders. Distribution facilities that are found defective are scheduled for replacement.

- b) Number and percentage of transmission and distribution inspections planned and completed for 2016.

The Utilities Commission, City of New Smyrna Beach has approximately 420 transmission poles. During 2016 no transmission poles required inspection. Osmose Utility Services completed 100% of the transmission poles inspection for the UCNSB in 2012. Inspections are scheduled for 2017.

The Utilities Commission, City of New Smyrna Beach has approximately 12,000 distribution poles. During 2016 Osmose Utility Services inspected 1,465 distribution poles, approximately 12.2 % of our system.

- c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

Transmission: Inspection completed during 2012; Inspections scheduled for 2017.

Distribution: See Attachment B

- d) 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, including a description of the remediation taken.

Transmission: Inspection completed during 2012; Inspections scheduled for 2017.

Distribution: See Attachment B

5. Vegetation Management

- a) 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 Utilities Commission, City of New Smyrna Beach trims trees on an ongoing basis. We currently have three crews continuously trimming trees and reducing vegetative growth throughout the system. Each crew works 40 hours a week. We maintain one crew trimming main feeders and the other crews performing "hot spot" trimming as required.

Our tree trimming records indicate that during 2016 we trimmed approximately 20% of our distribution system. Similar to the previous year, we performed clear cutting on approximately 20% of our transmission lines. As in previous years, we continued our practice of mowing our transmission lines on a yearly basis.

The Utilities Commission, City of New Smyrna Beach continues working with the City of New Smyrna Beach, Volusia County and Florida Department of Transportation to increase tree trimming and clearing along public right of ways.

- b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

See response to Item 5a.

6. Storm Hardening Research

The Utilities Commission, City of New Smyrna Beach 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.

Attachment B

Distribution Poles

Distribution Poles Inspected : 1465

Rejected Distribution Poles: 352 **Percent of Total:** 24.0%

Rejected Due to Decay:

| | |
|---------------|------------|
| 30' CI 6: | 31 |
| 30' CI 5: | 65 |
| 35' CI 5: | 52 |
| 35' CI 4: | 57 |
| 40' CI 5: | 16 |
| 40' CI 4: | 69 |
| 45' CI 4: | 15 |
| 45' CI 3: | |
| 50' CI 3: | 6 |
| 50' CI 2: | 3 |
| 55' CI 2: | 3 |
| 60' CI 2: | 1 |
| 60' CI 1: | |
| 65' CI 1: | |
| TOTAL: | 318 |

Rejected Due to Split Tops:

| | |
|---------------|-----------|
| 30' CI 6: | |
| 30' CI 5: | |
| 35' CI 5: | |
| 35' CI 4: | |
| 40' CI 5: | 3 |
| 40' CI 4: | 16 |
| 45' CI 4: | 9 |
| 45' CI 3: | 6 |
| 50' CI 3: | |
| 50' CI 2: | |
| 55' CI 2: | |
| 60' CI 2: | |
| 60' CI 1: | |
| 65' CI 1: | |
| TOTAL: | 34 |

Rejected Due to Woodpecker Damage:

| | |
|---------------|----------|
| 30' CI 6: | |
| 30' CI 5: | |
| 35' CI 5: | |
| 35' CI 4: | |
| 40' CI 5: | |
| 40' CI 4: | |
| 45' CI 4: | |
| 45' CI 3: | |
| 50' CI 3: | |
| 50' CI 2: | |
| 55' CI 2: | |
| 60' CI 2: | |
| 60' CI 1: | |
| 65' CI 1: | |
| TOTAL: | 0 |

Replaced/Repaired Poles:

| | |
|---------------|-----------|
| 30' CI 6: | |
| 30' CI 5: | 22 |
| 35' CI 5: | |
| 35' CI 4: | 6 |
| 40' CI 5: | |
| 40' CI 4: | 18 |
| 45' CI 4: | 7 |
| 45' CI 3: | |
| 50' CI 3: | 6 |
| 50' CI 2: | |
| 55' CI 2: | 1 |
| 60' CI 2: | 1 |
| 60' CI 1: | |
| 65' CI 1: | |
| TOTAL: | 61 |

Poles Restored w/ C Truss:

| | |
|---------------|----------|
| 30' CI 6: | |
| 30' CI 5: | |
| 35' CI 5: | |
| 35' CI 4: | |
| 40' CI 5: | |
| 40' CI 4: | |
| 45' CI 4: | |
| 45' CI 3: | |
| 50' CI 3: | |
| 50' CI 2: | |
| 55' CI 2: | |
| 60' CI 2: | |
| 60' CI 1: | |
| 65' CI 1: | |
| TOTAL: | 0 |

Repaired Woodpecker Damage:

| | |
|---------------|----------|
| 30' CI 6: | |
| 30' CI 5: | |
| 35' CI 5: | |
| 35' CI 4: | |
| 40' CI 5: | |
| 40' CI 4: | |
| 45' CI 4: | |
| 45' CI 3: | |
| 50' CI 3: | |
| 50' CI 2: | |
| 55' CI 2: | |
| 60' CI 2: | |
| 60' CI 1: | |
| 65' CI 1: | |
| TOTAL: | 0 |

Customer growth has impacted pole replacement schedule.