

**Utilities Commission, City of New Smyrna Beach, DBA New Smyrna Beach Utilities
Report to the Florida Public Service Commission Pursuant to
Rule 25-6.0343, F.A.C.
Calendar Year 2023**

1) Introduction

- a) Utilities Commission, City of New Smyrna Beach,
DBA New Smyrna Beach Utilities (NSBU)
- b) 200 Canal Street, New Smyrna Beach, FL 32168
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2) Number of meters served in calendar year 2023

New Smyrna Beach Utilities served 31,201 customer meters as of month-end December 2023.

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at New Smyrna Beach Utilities comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after January 1, 2017, the 2017 NESC applies. The edition of the NESC in effect at the time of the facility's initial construction governs electrical facilities constructed prior to January 1, 2017.

b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the New Smyrna Beach Utilities are guided by the extreme wind loading standards as specified by <http://windspeed.atcouncil.org/> as recommended by the NESC for:

- a) New construction.
- b) Major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006.

c) Flooding and Storm Surges

New Smyrna Beach Utilities is in the process of evaluating our standards, policies, guidelines, practices and procedures that address the effects of flooding and storm surges on underground facilities and supporting overhead facilities. Through the Florida Municipal Electric Association, New Smyrna Beach Utilities participates in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research to justify the effort and cost of converting overhead to underground.

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

Electrical construction standards, policies, guidelines, practices, and procedures at New Smyrna Beach Utilities 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 New Smyrna Beach Utilities facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. New Smyrna Beach Utilities 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

Electrical construction standards, policies, guidelines, practices, procedures and permitting requirements New Smyrna Beach Utilities include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles.

The pole attachment agreements between New Smyrna Beach Utilities and third-party attachers include language which specifies that the attacher, not the New Smyrna Beach Utilities, has the burden of assessing pole strength and safety before they attach to the pole.

New Smyrna Beach Utilities performs follow-up audits of attachments post-construction prior to permit close-out to ensure the attachment is properly installed. New Smyrna Beach Utilities completed its first entire system third-party attachment audit and is in the process of developing a regular inspection plan.

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 NSBU contracts with Osmose Utilities Services, Inc. (Osmose) to inspect all transmission and distribution poles and structures as part of an eight (8) year inspection program. The NSBU has 11,263 electric distribution poles and 420 transmission poles. The NSBU service territory is divided into eight (8) sections. Each section has been assigned an inspection year in order to maintain a consistent eight (year) inspection plan.

In addition, transmission, distribution and substation facilities are inspected as part of our standard annual, weekly and daily inspection programs. Deficiencies are recorded and corrective maintenance plans are prioritized and scheduled for repair or replacement of defective items.

- b) **Describe the number and percentage of transmission and distribution inspections planned and completed for 2023.**

Infrared Distribution Line Inspections – Annual PM Program

In July/August 2023, NSBU contracted with Brady Infrared Inspections, Inc. to complete an infrared survey of its entire service territory (~230 line miles). The infrared survey provided thermal patterns detected in NSBU electrical and mechanical distribution equipment. Thermal scanning was conducted using a FLIR ThermaCam P65 long-wave radiometric thermal camera. From the survey results, 41 thermal exceptions were identified requiring repairs/replacement. All 41 items were repaired in 2023.

Infrared Substation Inspections – Annual PM Program

In July/August 2023, NSBU contracted with Brady Infrared Inspections, Inc. to complete an infrared survey of all four (4) of NSBU’s substations and related infrastructure and equipment. The infrared survey provided thermal patterns detected in NSBU electrical and mechanical distribution equipment. Thermal scanning was conducted using a FLIR ThermaCam P65 long-wave radiometric thermal camera. From the survey results four (4) thermal exceptions were identified requiring repairs/replacement. All four (4) items were repaired in 2023.

Wood Pole Inspection and Maintenance Program – 8 Year Cycle

NSBU's pole inspection, remediation and maintenance program is an 8-year cyclical program. The pole inspection program includes inspection, treatment and identification of poles requiring repair or replacement. The NSBU's pole inspection, remediation and maintenance program is conducted in accordance with industry standard practices, RUS Bulletin 1730B-121, Florida Statutes Section 364.15 and NESC Rule 214.A.2.

Transmission Wood Pole Inspections

In calendar year 2023, transmission pole inspections were planned and completed for 218 or 52% of NSBU transmission poles.

Distribution Wood Pole Inspections

In 2023, the annual distribution pole inspections were planned and completed 1,600 distribution poles or 14% of the NSBU electric distribution poles.

Pad Mount Distribution Transformer Inspections, Painting and Repair

In 2023, the NSBU inspected, repaired and painted 50 pad-mount transformers as part of a new annual inspection program.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2023 and the reason for the failure.

Transmission Poles

In 2023, 218 Transmission poles were inspected. This constitutes 52% of all NSBU electric transmission poles. Inspection results for 218 poles are as follows:

- 205 poles had no decay (94% of poles inspected)
- 3 poles had decay but were serviceable (1.4% of poles inspected)
- 10 poles were rejected poles with groundline & above ground decay (4.6% of poles inspected)

Distribution Poles

In 2023, 1,600 distribution poles were inspected. This constitutes 16% of all NSBU electric distribution poles. Inspection results for 1,600 poles in 2023 were as follows:

- 1,513 poles had no decay (94.6% of poles inspected)
- 58 poles had decay but were serviceable (3.6% of poles inspected)
- 29 poles were rejected poles with groundline & above ground decay (1.8% of poles inspected)

- 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 2023, including a description of the remediation taken.**

Pole replacements and serviceable repair recommendations are currently under review and being prioritized and planned for completion in calendar year 2024.

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.**

In calendar year 2021, the NSBU transitioned its tree trimming program to a three-year cycle programmatic power line clearing plan for all of our distribution overhead facilities (mains and laterals). The program includes professional mowing, trimming, clear cutting of Right-of-Way (ROW)/Easements and removal of trees and other vegetation which is near energized transmission and distribution power lines. Additionally, the NSBU performs mid-cycle or spot trimming of known high growth areas.

The NSBU vegetation management program is following industry standard vegetation management practices and procedures (ASNI A300(Part 1)-2001, ANSI Z133.1-2000, NESC Rule 218 and NERC Standard FAC-002-2), as applicable to the weather, vegetation species and growth patterns in New Smyrna Beach, Florida. The vegetation management programs NBSU is employing is consistent with electric utility industry vegetation management best practices.

In calendar year 2022, the NSBU transmission lines, rights-of-way and easements were also put on a three-year, programmatic schedule similar to the distribution line program.

- b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2023.**

As part of its three-year cycle of planned vegetation management activities, in calendar year 2023 the NSBU vegetation management contract crews completed trimming and clearing for 93.2 line miles (38% of total line miles) of NSBU distribution lines and completed mid-cycle trimming activities for an addition 80.5 distribution line miles.

Across calendar years 2022-23, the NSBU completed 100% of trimming, clearing and mowing along its overhead transmission lines, right-of-ways and easements.

6. Storm Hardening Research

New Smyrna Beach Utilities 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 will provide the FPSC with a report of research activities. For further information, contact Amy Zubaly, Executive Director, FMEA, 850-224-3314, ext. 1001, or azubaly@flpublicpower.com.

7. Storm Hardening Accomplishments

Beginning in 2019, the NSBU created an Electric Reliability Improvement plan (ERIP) installing a combination of new automated equipment and new sectionalization devices along with improved design standards and improved planned maintenance programs and which has vastly improved the NSBU system and storm resiliency. As of the end of 2023, the NSBU frequency of outages (SAIFI) has been reduced by 41% and outage duration (SAIDI) has been reduced by 32%. These improvement values speak to the benefits from the combined efforts of effective PM programs and a well-planned ERIP program - all supporting improved hardening and resilience at the system level.

Additionally, during the two hurricane events in calendar year 2022, the NSBU had experienced relatively minor damage during both Hurricane Ian and Hurricane Nicole which we attribute to the resiliency efforts. During Hurricane Ian, the NSBU experienced 95+ MPH winds over a sustained period of time, concurrent with 22 inches of rainfall locally in a 24-hour period. The NSBU resiliency efforts facilitated a quick restoration time during Hurricane Ian, with 98% of our customers being in service within 3 days.