

February 21, 2024

Florida Public Service Commission
Gerald L. Gunter Building 2540 Shumard Oak Boulevard, Suite 152
Tallahassee, Florida 32399-0850

To whom it may concern,

Pursuant to Rule 25-6.0343, Florida Administrative Code, attached below is the Storm Hardening Report for 2023 for the City of Lake Worth Beach Electric Utility.

Thank you,
Jakub Pajak
Engineering Distribution Electrical Engineer | Electric Utility Department



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

1) Introduction

- a) City of Lake Worth Beach Electric Utility (CLWBEU)
- b) 1900 2nd Ave N. Lake Worth Beach, FL 33460
- c) Contact information: Jakub Pajak, Distribution Engineer, 561-273-6907, jpajak@lakeworthbeachfl.gov

2) Number of meters served in calendar year 2023

A total of 28,689 meters was recorded on August 9th, 2023.

3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the CLWBEU 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

CLWBEU uses NESC standard 250C to identify extreme wind loading in the city's location to be 145mph. All current construction designs for overhead facilities use the aid of software and are tested for loading of 145mph winds. This includes overhead framing, conductor size between spans, insulators, and other electric structures such as transformers and service drops.

c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at the CLWBEU address the effects of flooding and storm surges on underground and pad-mounted primary distribution facilities by utilizing equipment that is IEEE C57.12.29 for coastal environments rated for submersible applications.

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

Electrical construction standards, policies, guidelines, practices, and procedures at the CLWBEU 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 CLWBEU's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. CLWBEU 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

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

Facility inspections policies, guidelines, practices, and procedures at the CLWBEU provide wooden pole inspection occur within 6 months to a year cycle. In addition, if work in being performed on a single pole, the City practices requires to inspect all poles within the immediate spans.

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

The CLWBEU performed 500 pole inspections on the transmission and distribution facilities.

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

The CLWBEU replaced a total of 169 distribution poles to due deterioration of the wood poles. This is approximately 33% failed inspected distribution poles. No transmission poles failed inspection and needed replacement in the calendar year of 2023.

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.

The CLWBEU in the calendar year of 2023 observed most failed inspections on distribution wood poles with a class of 5. These poles failed inspection due to deterioration. All new installed poles are class 2 per the failed inspections, with a total of 169 wooden poles of various sizes.

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 CLWBEU recognizes the importance of vegetation management standards, policies, guidelines, practices, and procedures to ensure reliability of the Bulk Electric System. It involves planning, scheduling, and implementing a range of activities that aim to reduce the risk of vegetation-related power outages.

CLWBEU has a proactive approach to removing or modifying live and dead vegetation to reduce the potential for electric outages.

The approach contains two strategies utilizing onsite employees and an external vendor partner Davey Tree.

CLWBEU employees work in conjunction with Davey Tree to assure identification and removal of invasive, dense vegetation that presents a risk to reliability.

Proper Planning and Scheduling

The Davey Tree General Foreman performs visual inspections daily. The foreman drives down the main feeders, transmission overhead facilities, laterals and substations.

When incompatible vegetation poses a threat to utility infrastructure, they mow or cut it. Then, when it grows back, they mow or cut it again. The vendor also cuts back and trims trees throughout the service territory.

Proper Training and Equipment

To prevent injury to people climbing or working in or around trees adjacent to power lines. Any portion of a tree in contact with high voltage power lines can start electrical fires.

Regular Monitoring and Evaluation

Visual Inspections Weekly

The Energy Delivery Manager performs visual inspections and patrolling of vegetation growth near main feeders and transmission overhead facilities at least weekly.

Visual Inspections Daily

The Line Erector Foreman and line crews perform daily visual inspections at each of the locations they are routed to throughout the day. These locations are tracked in the daily routing report prepared by the Energy Delivery Manager.

Visual Inspections Monthly

The same vegetation inspections occur for laterals every month and are performed on this schedule based on historical records of outages caused by vegetation.

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

The vegetation management schedules tree trimming and mowing of vegetation every three (3) weeks once patrolling is performed and it is determined tree trimming and mowing is needed.

Bottom Line

Following best practices is essential for effective and efficient vegetation management. Proper planning and scheduling, the use of data to prioritize maintenance activities, proper training and equipment, and regular monitoring and evaluation are all key aspects of effective vegetation management programs.

6. Storm Hardening Research

CLWBEU 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.1, or azubaly@flpublicpower.com.