

**City of Gainesville/Gainesville Regional Utilities (GRU)
Report to the Florida Public Service Commission Pursuant to
Rule 25-6.0343, F.A.C.
Calendar Year 2021**

1. Introduction

- a) City of Gainesville/Gainesville Regional Utilities (GRU)
- b) Physical Address: 4747 North Main Street, Gainesville, FL 32609

Mailing Address: PO Box 147117, Station E2A, Gainesville, FL 32614
- c) Gary Baysinger, Energy Delivery Officer, (352) 393-1565; BaysingerGL@gru.com

2. Number of meters served in calendar year 2021

GRU serves Gainesville proper as well as Gainesville's urban fringe but does not serve the University of Florida main campus. The number of electric customers served in calendar year 2021 was 100,617 which can be broken down by class as follows:

Residential Customers:	89,235
<u>Non-Residential Customers:</u>	<u>11,382</u>
Total:	100,617

3. Facility Inspections

- a) GRU has a comprehensive and periodic pole inspection/treatment program which was initially implemented in 1992.

Overview

- The inspection cycle has been established at eight (8) years.
- The inspection method is to sound and bore every wood pole greater than ten years of age and perform a complete visual inspection of those poles for cracks, splitting and obvious decay.
- The pole base is exposed (where possible) to eighteen inches to inspect for indications of decay. Where such exposure is not possible, the pole is treated with MITC-fume, a pesticide that will migrate throughout the pole to prevent rot, decay and insect damage.
- Pole treatment is documented by pole inspection program maps and in electronic data files.

Transmission

GRU visually inspects all transmission lines for vegetation danger trees twice each year and following major storm events. GRU has detailed inspection and ground line treatment performed on all wood transmission poles following an eight-year cycle. The inspection and treatment of those poles consists of a sound and bore to locate unseen decay pockets and a full visual inspection. The ground line inspection includes exposing the pole to a depth of eighteen inches below ground line. After inspection, any decay is removed and a preservative paste is applied to prevent future decay. Transmission lines are also treated

with MITC-fume to prevent internal decay as well. MITC-fume is a pesticide that migrates throughout a pole to prevent rot, decay and insect damage. Visual inspections also provide information about other items such as damaged hardware, woodpecker holes, cracks, splits and decayed pole tops. GRU replaces all rejected poles within one year of the inspection date. Rejected poles determined to be a “priority” are replaced immediately.

Distribution

GRU performs a detailed inspection and ground line treatment on all wood distribution poles ten years of age or older on an eight-year cycle. The inspection and treatment of these poles consists of sound and bore to locate unseen decay pockets and a full visual inspection. The ground line inspection includes exposing the pole to a depth of eighteen inches below ground line where possible. After inspection, any decay discovered is removed and a preservative paste is applied to prevent future decay. Distribution poles that cannot be fully ground line inspected are treated with MITC-fume to prevent internal decay. Visual inspections also provide information on other problems such as damaged hardware, woodpecker holes, cracks, splits and decayed pole tops. GRU replaces all rejected poles within one year of the inspection date. Rejected poles determined to be a “priority” are replaced immediately.

- b) No Transmission Poles were inspected in 2021. 4,185 distribution poles were inspected with 23 rejects (1% reject rate). GRU completed 100% of planned work for 2021.
- c) Of the 4,185 distribution poles inspected, 23 were identified for replacement (reject rate 1%). The replacements were caused by shell rot, mechanical damage, exposed pocket, enclosed pocket, split top, woodpecker holes and decayed tops. The low rate of rejected poles show the benefits of our pole inspection program.
- d) Remediation following inspection of poles

Transmission Poles

No remediation needed on transmission poles

Distribution Poles

Height/Class	# in class	% of total	Remediation
30/6	5	22%	Replaced or scheduled for replacement
35/5	3	13%	Replaced or scheduled for replacement
35/6	1	4%	Replaced or scheduled for replacement
40/4	1	4%	Replaced or scheduled for replacement
40/5	6	26%	Replaced or scheduled for replacement
45/2	1	4%	Replaced or scheduled for replacement
45/4	2	10%	Replaced or scheduled for replacement
45/5	3	13%	Replaced or scheduled for replacement
55/3	1	4%	Replaced or scheduled for replacement
TOTALS	23	100%	

4. Vegetation Management

- a) GRU's Vegetation Management work group establishes and maintains the clearances required to reliably operate approximately 560 miles of overhead distribution lines on a rotating cycle. The work plan each year is defined, scheduled and executed by specific distribution circuits which range in size from approximately two to twenty-five miles in length. The prioritization of these circuits is based upon reliability and visual inspections. The vegetation management program includes the maintenance of primary, secondary and service drops. The utility also has an aggressive herbicide program to reduce the density of undesirable vegetation as well as a tree growth regulator program to address specific problems. As much as it is possible to identify potentially hazardous trees from beyond the limits of the right-of-way/easement, GRU has a program to work with property owners to remove problem trees and re-plant low growing trees or shrubs if necessary.

The distribution vegetation maintenance program is based upon nationally recognized standards of tree care and vegetation management practices and adapted to Gainesville's environment and specific operating concerns. These standards and practices include, but are not limited to, the following:

- National Electric Safety Code
- ANSI A300 (Tree care - standard practices)
- ANSI Z133.1 (Tree care - safety practices)
- Shigo - Pruning trees near electrical utility lines
- Shigo - Tree Pruning
- Matheny and Clark - Evaluation of hazardous trees in urban areas

Components of the distribution maintenance program are:

- Routine utility tree pruning
- Selective tree removals based upon hazardous conditions
- Selective use of herbicides
- Selective use of tree growth regulators
- Mowing

Appropriate Planting

- GRU advocates "Planting the Right Tree in the Right Place".
- GRU maintains a number of different types of ground level electric facilities, and the two the utility is most concerned with are switchgear and pad-mount transformers. It is imperative that customers do not plant shrubs and small trees directly in front of these facilities. Each facility has a decal that informs the public of the required clearance with regard to the planting of trees and landscaping activities.
- GRU has also developed a set of tree planting guidelines to be used by developers and engineers to keep trees and landscaping a specified distance away from the utility's facilities. GRU collaborates with the city, Alachua County, landscape architects and developers to inspect and review development plans to ensure "right tree, right place" and provide a safe and reliable utility system for the future.
- The City of Gainesville enjoys an especially dense tree canopy, one that is clearly favored by the community and its citizens. As a neighbor and responsible municipal

- electric utility, GRU has long acknowledged its obligation to serve its customers in the most effective and least intrusive manner.
- GRU's Vegetation Management program was developed over time with a care and control agenda that has been recognized as a model program for electric utilities. GRU records and continually monitors vegetation-related service interruptions. Tree-related outages are recorded in one of three categories:
 - Tree Preventable – caused by vegetation to be maintained within our easements
 - Tree Non-Preventable – caused by vegetation from outside of our easements
 - Vines – caused by vines

GRU was the subject of a North American Electric Reliability Council (NERC) performance and readiness audit in April 2006 where GRU's Vegetation Management Program received a Potential Example of Excellence (PEOE).

Their report stated, *"GRU has a well-documented and comprehensive vegetation management policy, program and knowledgeable staff. The GRU vegetation management program and staff oversight is identified as a potential example of excellence for its comprehensive, detailed procedures and performance of the program itself."*

An FRCC Spot Audit was conducted in the latter half of 2009. The results found the vegetation management program was in compliance with all requisite requirements.

- b) GRU's transmission and distribution right-of way maintenance of vegetation is a routine and on-going, year-round program. This is accomplished through the use of a utility approved contractor directed and inspected by GRU's Forestry professionals and Utility management staff.

Transmission System Information

76.2 corridor miles @138 kV

2.5 corridor miles @ 230kV (falls into NERC Standard FAC-003-1)

GRU applies NERC Guideline FAC-003-1 over our entire transmission system.

Transmission Inspections

The program calls for bi-annual inspections (spring and fall) to identify conditions which would pose a near-term threat to the operation of the system such as insect infestations or any other factor that would impact tree mortality or structural integrity. The program also calls for a complete inspection immediately following any significant events such as hurricanes, tornadoes or fires.

Inspections cover 100% of GRU's transmission system and are conducted by Vegetation Management personnel.

Spring 2021 Inspection Summary:

Inspected – 100% of Transmission system.

Results – 20 trees were identified for trimming and 15 for removal.

Follow-up activities – Work orders issued and completed by contract tree crews, post checked by GRU Forester

Fall 2021 Hazard Tree Inspection Summary:

Inspected – 100% of Transmission system.

Results – 30+ tree were identified for trimming and 10 for removal.

Follow-up activities – Work orders issued and completed by contract tree crews, post checked by GRU Forester.

Transmission Maintenance

The floor of the transmission system was mowed twice in 2021 and it included 2 miles of transmission corridor was that reclaimed plus the clearing of the edges to the legal easement. The transmission corridor floor was also maintained by scheduled herbicide spot applications which were selective and targeted to those species which are capable of growing to a mature height and could interfere with the transmission system conductors.

Distribution Maintenance

GRU maintained its cyclic distribution system maintenance cycle in 2021 and trimmed approximately 150 miles of programmed work in accordance with our cyclic trimming program. Additional emphasis is being placed on hazard trees that are located out of our easements and right-of-ways as well as using various herbicides and growth regulators to increase trimming effectiveness.

Summary

GRU's cycle-based line clearance practices embrace the philosophy of storm hardening on critical feeders, double circuits and three-phase backbone circuits. The utility uses best practices which include targeting dead, diseased or damaged trees, the removal of overhanging branches and increased tree clearance. Out-of-cycle activities include frequent patrols and year-round monitoring and targeting of danger trees. GRU continuously reviews and improves its vegetation maintenance programs. This effort is realized in part by evaluating and using information presented in forums such as the Public Utility Research Center vegetation maintenance conference which was held January 26-27, 2009. That report was made available to GRU by the FMEA.