



February 28, 2017

Lee County Electric Cooperative, Inc. (LCEC)
PO Box 3455
N Ft Myers, FL 33918-3455

Mr. Thomas Ballinger, Director
Engineering Division
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Dear Mr. Ballinger,

Please find enclosed Lee County Electric Cooperative, Inc.'s (LCEC) Annual Report on Standards of Construction, Facility Inspections, and Vegetation Management for calendar year 2016. This filing is pursuant to Rule 25-6.0343 F.A.C.

Also enclosed is a matrix that summarizes many of LCEC's activities for the calendar year 2016.

If you have any questions, please do not hesitate to call me (239) 656-2347.

Sincerely,

s/ Frank R. Cain, Jr., Director
Regulatory & Governmental Relations and Chief Risk & Compliance Officer

cc: Clark Hawkins
Allan Ruth

**Annual Report on Lee County Electric Cooperative, Inc.'s (LCEC)
Standards of Construction, Facility Inspections, and Vegetation Management
for calendar year 2016**

Standards of Construction:

- a) LCEC's construction standards comply with the National Electrical Safety Code (ANSI C-2) [NEESC]. Electrical facilities constructed through December 31, 2016 comply with the edition of the code in effect at the time of the facility's initial construction.
- b) LCEC has construction standards, for required facilities, that meet the extreme wind loading standards specified by Figure 250-2(d) of the 2012 edition of the NEESC.
- c) Although not waterproof, LCEC's equipment and constructed facilities are designed to be water resistant. The majority of our underground facilities (excluding conduits and cables) are at or above existing/surrounding grade.
- d) Although often at odds with the desires of customers and governmental entities, LCEC's current practice is to place the majority of new and replacement distribution facilities in the front of lots. This does provide in most cases the safest and most efficient access for installation and maintenance. If necessary, easements for placement of distribution facilities are requested from customers.
- e) LCEC's standards for joint use provide clearances (distances) for conductors, equipment, and risers. The joint use agreements that are entered into with pole attachment parties detail the process for evaluating pole loading capacity. Additionally, the agreements define the responsibilities for pole reliability and upgrading. Currently, LCEC does not permit attachments to transmission poles.

Facility Inspections:

- a) Transmission inspection 2-year cycle (138 kV): Inspect all poles and structures by either climbing or with the use of a bucket truck. Inspect poles, structures, guys, anchors, insulators, crossarms, conductors, shield wires, right-of-way, for any structural deficiency or any situation that may impact the structural integrity of the facility. Inspections are conducted by either climbing the pole/structure or with the use of a bucket truck.

Distribution inspection: 2-year cycle visual inspection: Single Phase, visually inspect all poles for splitting, cracking, visual decay, twisting, and bird damage. Patch minor woodpecker holes. 10-year cycle climbing the pole inspection: Inspect all three phase poles for splitting, cracking, visual decay, twisting, and bird damage. Patch minor woodpecker holes. When digging around ground line of poles for ground rod checks, check pole for ground rot. Sounding and assessing each pole for deteriorating by probing with a screwdriver. Examine

concrete poles for evidence of cracks and physical damage. Plumb poles if they are (1+) pole top out of plumb. In 2015 LCEC implemented a multi-year Targeted Pole Change Out initiative, a proactive step towards replacing poles nearing the end of their life expectancy.

In 2016 LCEC inspected 1,007 out of a total of 1,902 transmission poles and structures. This included 52% of the 138 kV facilities. This was 100% of scheduled.

In 2016, LCEC completed inspections on 76,631 distribution poles. This was 96.0% of inspections scheduled and 47.8% of total poles.

During the 2016 inspection of the transmission facilities, 108 poles (10% of inspected) failed inspection criteria. Of these, 55 failed due to rot, 5 to woodpecker damage, 48 concrete due to life expectancy.

During the 2016 inspection of the distribution facilities, 1,894 poles (2.5% of inspected) failed inspection criteria. Of these, 1,860 failed due to rot/split top, 0 failed due to out of plumb, and 34 failed due to woodpecker damage.

In 2016, LCEC replaced 60 transmission poles due to rot. The replacement poles are concrete and steel; the majority being concrete

In 2016, LCEC repaired through re-plumbing 0 poles; repaired through trussing 44 (2.6% of total that failed inspection); and repaired through patching 34 (2.0% of total that failed inspection). The replaced poles consisted of one (1) Class-1; nine (9) Class-2; fifty-three (53) Class-3; one hundred eight (108) Class-4; one thousand six hundred forty nine (1,649) Class-5; and seventy four (74) Class-6.

Vegetation Management:

- (a) LCEC has developed the following Vegetation Management Program for the control of vegetation on its distribution facilities. This Program covers the maintenance of vegetation for the 3,953 miles of single, double and three-phase distribution lines. Goals and strategies of the program are:
 - 1) Maintain reliability of the distribution lines by controlling vegetation to meet the requirements of NESC and ANSI.
 - 2) Strategies for control include cultural, mechanical, manual, and chemical treatments.
 - 3) LCEC's practices planned circuit trimming on a six year cycle for single phase and a three year cycle for double and three phase distribution.
 - 4) Approved procedures include directional trim techniques per ANSI A300 standard. Maintain side clearance of 8-10 feet or employ the use of directional trim technique of taking the cut to the next lateral beyond the standard clearance point. Standard ground/horizontal clearance is one foot below the lower most cable attachment or 12 feet from the primary,

whichever is greater. Palm trees are tipped back so fronds will not make contact with the primary when they drop. Overhang less than 15 feet above the primary is removed. All vines are cut and sprayed.

LCEC's TREES (To Respect Electricity and the Environment Safely) communication program focuses on planting and landscaping. Key messages are incorporated into the customer newsletter at least twice a year. Door hangers with brochures containing detailed information about planting the right tree in the right place are distributed throughout neighborhoods prior to circuit trimming. Through LCEC's Public Relations Department, presentations are used to promote smart landscaping to city government, builders and local agencies

LCEC maintains a quarterly ground inspection of ROW Restriction Vegetation with trim/maintenance done as required.

- (b) 2016's Planned Vegetation Management for transmission and distribution was completed as follows:

2016 Vegetation Management Schedule			
	YE Actual	YE Goal	% YE
Transmission trimming*	3.41	3.41	100.0%
Three-phase trimming*	175	175	100.0%
Single-phase trimming*	1,090	1,090	100.0%
Transmission mowing*	31.19	31.19	100.0%
138 kV inspection	Jan thru Dec	Annual	100.0%
ROW Restriction Inspection/Maintenance	Q1, Q2, Q3,Q4	Quarterly	100.0%

* Miles

Summary of Rural Electric Cooperative Utility Reports Pursuant to Rule 25-6.0343, F.A.C. – Calendar Year 2016

Utility	The extent to which Standards of Construction address:						Transmission & Distribution Facility Inspections:				Vegetation Management:		
	Comply with the 2007 NESC on or after 2/1/2007	Guided by Extreme Wind Loading per Figure 250-2(d)			Effects of flooding & storm surges on UG & OH distribution facilities	Placement of distribution facilities to facilitates safe and efficient access	Written safety, pole reliability, pole loading capacity, and engineering stds for Attachments	Description of policies, guidelines, practices, procedures, cycles and pole selection.	No. & Pct. of poles & structures planned & completed	No. & Pct. of poles & structures failing inspection w/ reasons	No. & Pct. of poles & structures, by class, replaced or remediated w/ description	Description of policies, guidelines, practices, procedures, tree removals, w/ sufficiency explanation.	Quantify, level, & scope planned and completed for transmission and distribution.
		New Const.	Major Planned Work, Expansion, Rebuild, or Relocation	Targeted Critical Infrastructure and major thoroughfares									
Lee County Electric Cooperative Inc.	Yes.	guided by 2012 Figure 250-2(d).			Yes.	Yes.	Yes.	T: 2-Yr full D: 10-Yr	T: Planned 1,007 pole inspections (52% of all 138 kV poles) completed 100%. D: Planned 79,823 (47.8% of Total Population) Completed 76,631 (96.0% of Planned)	T: 10% failed inspection 55 decay; 5 woodpecker, 48 to life expectancy. D: 1,894 Failed (2.5% of total inspected); 1,860 rot/split top; 0 out of plumb; 34 woodpecker damage	T: 60 replaced in 2016. D: Replumb 0; Patch 34; Trussed 44; Replaced 1 Class 1; 9 Class 2; 53 Class 3; 108 class 4; 1,649 Class 5; and 74 Class 6.	T: 138KV Annual D: Circuit Trim 3-Yr Cycle for 2&3 Phase circuits; 6-Yr Cycle for 1 Phase circuits	T: inspection 100% of plan T: Mowing 100% D: 100.0% of plan