

**Sumter Electric Cooperative, Inc. Report to the Florida Public Service
Commission Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2007**

1) *Introduction*

- a) Sumter Electric Cooperative, Inc. (SECO)
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2) *Number of meters served in calendar year 2007* = 163,631 as of December 31, 2007.

3) *Standards of Construction*

- a) *National Electric Safety Code Compliance* - Sumter Electric Cooperative's design and construction standards follow RUS guidelines which are in compliance with the NESC.

Construction standards, policies, guidelines, practices, and procedures at SECO comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. 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.

b) *Extreme Wind Loading Standards*

At this time, SECO transmission facilities are designed to be guided by the extreme loading standards on a system-wide basis. Our distribution facilities are designed to withstand 100 mph according to the 2002 NESC. SECO is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Electric Cooperative Association. Though we continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas. At this time we do not have sufficient data to substantiate the effort and cost of making major upgrades to our system. We feel that it is important to wait for the results of this research before making such a commitment.

c) Flooding and Storm Surges

SECO is a non-coastal utility. Storm surge is not a consideration. While we serve a coastal county (Citrus), the closest SECO facility is 14 miles from the coast.

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

Electrical construction standards, policies, guidelines, practices, and procedures at the SECO 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 SECO's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. It is the policy of SECO to install electrical facilities on the front of lots except those cases that are prohibited by land covenants. SECO 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, and procedures at SECO 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. SECO inspects all new attachments. In 2007 all attachments were inspected and field verified and subsequently SECO will inspect all attachments every six years.

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.

It is the policy and practice of SECO to inspect its facilities to increase reliability to our members. SECO inspects its transmission facilities, substation facilities, and distribution facilities.

Since the transmission system is the most critical because it serves the most number of members per line, SECO has instituted a policy of completing a climbing inspection every five years, with the last inspection being completed in 2006. A ground inspection on these transmission structures will be completed once every eight years. The ground inspection includes sound and boring tests,

and excavation of all poles for treatment per RUS Bulletin 1730B-121. All transmission poles replaced are being replaced with concrete poles.

The next most critical items in the electrical system are the substations. SECO does a visual inspection every month at every substation. Also it is the policy and practice to conduct an infrared inspection bi-monthly on every substation to reveal hot spots that could cause substation outages. This has been very effective, and is one reason our substation reliability has been extremely good in recent years.

It has been the policy and practice to perform a ground inspection on 100% of its distribution poles every nine years. The ground inspection includes sound and boring tests, and excavation of all poles for treatment per RUS Bulletin 1730B-121. This was modified in 2007, and now 100% of our distribution poles will be inspected every eight years. Also SECO will perform a security inspection on 100% of its underground equipment every eight years.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2007.

a. Transmission System

We did not complete a transmission inspection in 2007.

b. Distribution System

We completed 100% of our distribution pole inspection and 27% of our voluntary distribution underground equipment inspection.

Year	# of Structures – Planned Inspections	% of Total Structures	# of Structures – Actual Inspected	% Complete vs. Planned
2007 (UG)	5,200	13%	1,400	27%
2007 (OH)	18,357	14%	18,357	100%

- c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2007 and the reason for the failure.

Transmission and Distribution System

We did not complete a transmission pole inspection in 2007.

Year	System	# Failed	% Failed	Cause
2007	Distribution	94	0.5%	Ground Rot
2007	Distribution	67	0.4%	Top Deterioration
2007	Distribution	19	0.1%	Reinforceable

- 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 2007, including a description of the remediation taken.

The following numbers for SECO represent the remediation by pole type for distribution poles. The remediation is either replacement or reinforcement with a steel reinforcing member. SECO will complete all distribution pole remediation by 3/1/08.

Pole Type and Class	# Failed	% Remediation complete (as of 3/1/08)
25/7	2	100%
30/5	1	100%
30/6	72	100%
35/4	1	100%
35/5	10	100%
35/6	60	100%
35/7	3	100%
40/5	21	100%
40/6	2	100%
45/4	2	100%
45/5	5	100%
55/3	1	100%
Total	180	100%

5. Vegetation Management

Sumter Electric Cooperative -Vegetation Management Policies, Guidelines, and Practices:

2007 Overview:

During 2007, SECO continued its practice of having a fully integrated vegetation management program. SECO continued to utilize the services of ACRT, Inc. for all of its forestry planning, audit and member contact activities. This focused effort resulted in a record number of tree removals for the year with a negligible amount of member dissatisfaction issues. This continued easement reclamation strategy is expected to contribute to future reliability gains as well as cost savings through the use of selective herbicides which was also fully implemented as part of the overall program in 2007.

Although SECO was able to trim approximately 1,173 circuit miles in 2007, this is short of the amount required to remain on a three-year, total-circuit (feeder and lateral tap) cycle. Based on early to mid-2007 issues with both manpower and expenditures, it was clear that existing mileage goals would be difficult at best to achieve. At that time, SECO conducted an extensive analysis of its existing cycle methodology taking into account all aspects of the program and the scope of its impact on other areas of the Cooperative's operation. Changes to the program were proposed which would limit both the short and long-term negative impact to reliability and cost. All of these changes, some of which were partially implemented in 2007, are described in this summary report. SECO continues to monitor results on a frequent basis and remains open and willing to adjust practices and procedures in order to maximize the overall effectiveness of the program.

Specifications:

The following are significant changes to SECO's vegetation management policies, guidelines, and practices that were used as the standard in 2007:

- **Trimming Clearances:** Clearances are based on species growth rates to maintain a three-year trim cycle. Slow growth species are trimmed at 10 feet; medium growth species are trimmed at 12 feet; fast growth species are trimmed at 15 feet.
- **Vegetation Removal:** SECO continued to utilize ACRT arborists to contact customers and plan work. They concentrate on gaining permission to remove trees that mainly fall in the 4"-10" diameter at breast height (dbh) range.
- **Brush Removal:** SECO removes all brush from under its conductors. This prevents future tree growth.
- **Herbicide Program:** All brush areas are treated the following season with an approved selective herbicide to prevent re-growth of woody species and encourage native grasses.
- **Pruning Practices:** SECO now requires all its vegetation management contractors to follow "SHIGO" industry standards and utilize directional pruning practices as often as practical. Adherence to these standards allows trees to remain healthy after pruning and to direct future growth away from overhead conductors while minimizing "water-sprouts".
- **Unit Price Contracting:** SECO utilized the services of two vegetation line clearance contractors in 2007. Lewis Tree Service, Inc. and Nelson Tree Service, Inc. performed all overhead line clearance work on the SECO system and were paid on a per-unit basis. This allowed SECO to accurately track work performed by type trim, removal, etc.

- **Circuit Prioritization:** SECO is attempting to remain on a three-year, total-circuit cycle. Circuits are currently prioritized based on reliability indices and actual field patrols. Those circuits that have experienced the most tree related outages are trimmed first.
- **Tree Replacement Program:** In 2007, SECO continued to offer a “Tree Replacement Program”. In certain instances, SECO offered customers either low-growing or slow-growing trees when customers allowed the removal of danger trees or tree lines in close proximity to conductors. During 2007, SECO purchased approximately fifty (50) trees for customers in exchange for strategic removals.

Vegetation Management Procedures:

Maintenance Trimming:

In 2007, ACRT continued to perform all work planning and customer notification. ACRT provided their work plans to SECO and in turn SECO provided them to the actual crews to do the trimming. This three party approach to permission and planning has resulted in a huge increase in tree removals from 2005 to 2007. ***In 2007 SECO removed 29,623 trees*** during the maintenance trimming process. Compared to 12,877 removals in 2006, this represents a 130% increase in the number of removals over the past year. Prior to 2006 this number was negligible. SECO also implemented an herbicide application program in 2007 to treat all brush units cut in 2006. All feeders were treated in 2007 with the exception of three circuits in Marion County due to special permitting concerns and scenic roadway issues raised by the County. The issues have been resolved and these remaining three circuits will be incorporated into the treatment plan for 2008 as well as all circuits trimmed in 2007. SECO received highly competitive rates for herbicide application and will continue to utilize this aspect of the integrated program to control costs and eliminate future growth of woody species from reclaimed easement areas.

New Construction / System Upgrade Trimming:

In 2007, SECO continued with its “Ground to Sky” trimming practice for all circuits that are newly constructed or are being significantly upgraded (re-conducted). These circuits are being clear-trimmed at 15 foot clearance. In addition, all underbrush is being removed.

2007 Results:

In 2007 SECO trimmed 1173 circuit miles and removed 29,623 trees. The following table is a summary:

DESCRIPTION	MEASUREMENT
Miles cut “Ground-to Sky” with 15 foot clearance on circuits for system improvement projects	47 miles
Miles “Maintenance Trimmed” per species growth rate (10 ft, 12 ft, or 15 ft)	1126 miles
Total miles trimmed in 2007	1173 miles
Total trees removed in maintenance trimming process	29,623

SECO's goal was to remain on a three-year, total-circuit trim cycle, and complete approximately 1540 circuit miles in the year 2006, 2007, and 2008, respectively. Through the end of 2007, SECO was only able to complete 1,919 miles, or about 59% of the original goal. There are four major reasons for the current deficit:

- SECO revised its entire vegetation management program and awarded a new contract in April, 2006. This was approximately one quarter into 2006.
- The successful unit priced bidder, Lewis Tree Service, Inc. (LTS) was not able to trim 1500 miles in 2006. They cited manpower issues as the cause. SECO had to add a second contractor in the 4th quarter of 2006 (Nelson Tree Service, Inc.) to perform maintenance trimming.
- Prioritization of circuits on a reliability basis has resulted in SECO addressing the worst-performing and therefore densest circuits on its system. This has resulted in extremely high unit per mile counts and a much larger than anticipated cost per mile. This has had a major impact to SECO's vegetation management budget and overall capability to meet established trim goals.
- Tree removals continue to far exceed projections. SECO customers are extremely willing to have trees either trimmed or removed. Since removals are so high, actual circuit miles trimmed has been reduced. Although this is expected to contribute to future improvements in overall reliability, it continues to inhibit the amount of miles currently being completed.

Obstacles Ahead:

There are two major obstacles that SECO's vegetation management program faces. These are: available contracting resources and cost to maintain a three-year, total-circuit trim cycle. Both obstacles are intertwined.

Since the Florida Public Service Commission (FPSC) has mandated revised tree trimming requirements for Investor Owned Utilities (IOUs) in Florida, the demand for tree trimming labor continues to remain strong while the available labor pool has remained relatively constant. This labor shortage was cited as a primary reason that LTS could not trim SECO's 1500 circuit miles in 2006 and again in 2007. Also, Nelson Tree Service, Inc (NTS), SECO's secondary trimming contractor can only supply out-of-state labor that is unstable and very costly. These labor shortages continue to make it difficult, if not impossible to reach trim goals.

In addition to not meeting trim targets, the labor shortage has translated into price increases. Since labor is tight or not available in Florida; contractors must either pay higher wages to in-state employees or bring personnel from other states. Out-of-state workers require per-diem and expenses that are directly passed to SECO and its customers. In 2005, SECO spent approximately \$3 million dollars to trim 1500 circuit miles. SECO estimates that to perform 1500 miles of circuit trimming in 2008 the cost would be approximately \$7.8 million dollars. This represents a 160% increase in price in just three years. If this expense were equally shared among SECO's approximately 163,600 customers, it would represent an annual bill of approximately \$48 to each customer. That cost is not possible to absorb or pass on. Even if SECO and its members could bear the huge cost increase, the

contractors would not likely be able to muster the manpower to complete the work. This is truly a problem that SECO and utilities across the state will continue to face for the foreseeable future.

2008 Plan:

Since SECO was not able to complete its entire planned circuit trimming in 2007, the remaining circuits as well as the 2008 scheduled circuits were prioritized based on tree related outages, field patrols and customers impacted. The worst performing circuits will be trimmed first and the best performing will be trimmed last.

Under the current scenario to maintain a three-year, total-circuit trim cycle, SECO would need to trim approximately 2,700 circuit miles in 2008 to complete the cycle. This is a monumental goal given the obstacles described above and essentially an unrealistic objective given current industry labor constraints and cost escalations. In light of this, SECO undertook an analysis during the first half of 2007 to assess the effectiveness of the current plan. The analysis included:

- Projecting the circuit miles that would be completed in 2007 with present production rates, available manpower, and units planned per mile.
- Closely analyzing the units cut per mile and determining if this is going up or down. This is the principle driver in ascertaining how many miles a contractor could trim.
- Projecting the cost to trim all 2007 circuit miles and comparing it to the 2007 budget.

Based on this analysis, it was discovered that due to escalating unit counts and circuit density, SECO had two options. Continue with the current plan or make philosophical adjustments. It was decided to make some targeted philosophical adjustments to the program beginning in 2008 in order to ensure future improvements in reliability and continued short and long-term cost effectiveness. Some potential areas of the program in which to make adjustments were developed and scrutinized as follows:

- Increase the total-circuit trim cycle from three years to some higher interval.
- Trim major feeder circuit backbone on a three year cycle and increase the cycle on laterals.
- Review the pricing structure of the contractors and determine if there is a more cost effective alternative.

Each of the above adjustments was evaluated based on both its short and long-term impact to the overall program as it related to service reliability and cost effectiveness. It was found that increasing the total-circuit trim cycle would not only have an unfavorable impact to reliability, but would also be the most costly option for the long term through 2015. Therefore, SECO revised its trim cycle methodology using a combination of the remaining two adjustments. Effective July 1, 2007, a change order was executed by SECO to the existing line clearance contract with Nelson Tree Service, Inc. which lowered several existing prices for units commonly used on our system. This reduction immediately resulted in essential cost savings. Also negotiated was a three-year extension to the Nelson Tree service, Inc. unit contract. This resulted in lower-than-average unit pricing compared to previous bidders (from 17% to 81% less) and will help stabilize trimming costs through 2010.

A second adjustment which will be implemented in 2008 is the modification of SECO's trim cycle timing based on the type of facility. In order to allow for the most favorable impact to reliability while still containing costs for the short and long term, all feeder backbone circuits will now be trimmed on a three-year cycle and laterals will now be trimmed on a six-year cycle. This will allow for continued improvements in vegetation-related reliability issues affecting large groups of customers.

Based on this philosophical adjustment, SECO then evaluated the appropriate mileage breakdown of feeder circuits versus lateral circuits for 2008. Based on available reliability data, field patrols and funding, SECO's goal for 2008 is to trim approximately 500 miles of feeder circuit backbone and 550 miles of laterals and other circuits (including work order-related trimming). This will leave approximately 460 miles of feeder backbone to be trimmed in 2009, thus completing the feeder trim cycle. Beginning in 2010, SECO will then commit to trimming all feeder backbone circuits on a three-year cycle by completing approximately 420 miles per year with remaining budget dollars allocated to lateral cycle trimming. Laterals will continue to be prioritized and trimmed at the rate of 1/6th of their total system mileage per year, or as much as resource and funding constraints will allow.

SECO recognizes the importance of an integrated vegetation management program. It is an essential component of providing safe and reliable electric service. Although there are obstacles to maintaining a cycle which provides the greatest level of reliability for the expenses incurred, SECO will continue to analyze its policies and procedures to determine the best course of action. To date, SECO has clearly demonstrated its commitment to vegetation management by maintaining a three-year trim cycle from 1996 to 2006, completely revising the procedures to address the concerns raised in 2004, and seeking improvement opportunities moving forward.

Program Segments:

Planning and Auditing Activities

SECO utilizes the services of ACRT, Inc. to plan and audit 100% of all trimming activities. They are responsible for all member contact and permission activities as well as the quality of work completed.





Trimming Activities

All SECO trimming work is performed by Nelson Tree Service, Inc. based on plans developed by ACRT. Nelson utilizes state-of-the-art equipment to ensure maximum effectiveness with minimal impact to our members.



SECO trimming contractors utilize pre-planned manifests generated by ACRT to ensure consistent application of SECO specifications and accuracy of billing. This has led to marked improvements in cost-effectiveness, resource allocation, and record-keeping. Utilizing all available types of equipment has also greatly helped SECO reduce its cost per mile.

Herbicide Activities

As part of SECO's fully integrated program, a systematic herbicide application program was implemented in 2007.



As shown above, SECO herbicide application contractors utilize both low-volume backpack sprayers and larger scale vehicle-mounted equipment to apply selective herbicides within our easements and rights-of-way.