

BEFORE THE PUBLIC SERVICE COMMISSION

In re: Requirement for investor-owned electric utilities to file ongoing storm preparedness plans and implementation cost estimates. | DOCKET NO. 060198-EI  
ORDER NO. PSC-07-0468-FOF-EI  
ISSUED: May 30, 2007

The following Commissioners participated in the disposition of this matter:

LISA POLAK EDGAR, Chairman  
MATTHEW M. CARTER II  
KATRINA J. McMURRIAN

ORDER REQUIRING FLORIDA POWER & LIGHT COMPANY TO IMPLEMENT SYSTEM-WIDE AVERAGE TRIM CYCLES OF THREE YEARS FOR DISTRIBUTION FEEDER CIRCUITS AND SIX YEARS FOR DISTRIBUTION LATERAL CIRCUITS

BY THE COMMISSION:

I. Background

By Order No. PSC-06-0351-PAA-EI, issued April 25, 2006, in this docket, this Commission required all investor-owned electric utilities (IOUs) to file plans and estimated implementation costs for ten ongoing storm preparedness initiatives on or before June 1, 2006. That order was consummated by Order No. PSC-06-0451-CO-EI, issued May 23, 2006. The docket was kept open in order for us to address the adequacy of the utility's plans for each of the storm preparedness initiatives. The ten ongoing initiatives are:

- 1) A Three-year Vegetation Management Cycle for Distribution Circuits,
- 2) An Audit of Joint-Use Attachment Agreements,
- 3) A Six-year Transmission Structure Inspection Program,
- 4) Hardening of Existing Transmission Structures,
- 5) A Transmission and Distribution Geographic Information System,
- 6) Post-Storm Data Collection and Forensic Analysis,
- 7) Collection of Detailed Outage Data Differentiating Between the Reliability Performance of Overhead and Underground Systems,
- 8) Increased Utility Coordination with Local Governments,
- 9) Collaborative Research on Effects of Hurricane Winds and Storm Surge,  
and
- 10) A Natural Disaster Preparedness and Recovery Program.

Regarding the first initiative, by Order No. PSC-06-0351-PAA-EI, we required each IOU to provide plans to implement a three-year trim cycle for all distribution feeder circuits and a three-year trim cycle for distribution lateral circuits, but allowed each IOU the opportunity to file an alternative to the three-year lateral circuit trim cycle. More specifically, we allowed the IOUs

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the flexibility to propose an alternative plan for lateral circuits if the alternative could be shown to be equivalent to or better than a three-year trim cycle in terms of costs and reliability.

On June 1, 2006, each IOU filed storm hardening plans addressing each of the ten ongoing storm initiatives. Tampa Electric Company and Florida Public Utility Company filed storm hardening plans which included vegetation management plans featuring a three-year trim cycle for both distribution feeder and lateral circuits. Florida Power & Light Company (FPL or Company) filed an alternative vegetation management plan with trim cycles for lateral circuits longer than three years (six years). Progress Energy Florida, Inc. and Gulf Power Company also filed alternative vegetation management plans with trim cycles for lateral circuits longer than three years (six years and five years, respectively).

By Order No. PSC-06-0781-PAA-EI, issued September 19, 2006, in this docket, we found FPL's vegetation management plan to be consistent with the compliance options provided by Order No. 06-0351-PAA-EI based on the data and analysis provided by the Company. Our proposed decision to accept FPL's vegetation management plan was timely protested by the City of North Miami (City). Specifically, the City protested the portion of Order No. PSC-06-0781-PAA-EI that proposed to approve a six-year average tree-trimming cycle for FPL's distribution laterals. The remainder of the Order was consummated by Order No. PSC-06-0859-CO-EI, issued October 13, 2006.

The City is in a hurricane prone area with significant foliage. In its petition protesting the Order, the City asserted that a "six-year maintenance schedule would allow for substantial [tree] growth to occur without maintenance." The City contended that "the alternative plan set forth by FPL, while rich with data, is actually worse in terms of overall costs and reliability in preparing South Florida for future storms where the standard is equivalent to or better than a three-year trim cycle." The City requested an amended order requiring three-year trimming cycles by FPL within the City. A full evidentiary hearing was conducted on February 5, 2007.

We have jurisdiction pursuant to Sections 366.04(2)(c), (2)(f), and (5), and 366.05(7), Florida Statutes.

## II. FPL's Average Trim Cycles

The question presented is whether FPL should establish a three-year trim cycle for its vegetation management program within the City.

### A. Positions and Arguments of the Parties

#### 1. City

In its post-hearing brief, the City points out that Order No. PSC-06-0351-PAA-EI requires utilities to provide a three year trim cycle for lateral distribution lines unless they can show their proposed alternative is equivalent or better in terms of cost and reliability. The City argues that FPL's testimony shows that its six-year trim cycle is less reliable than the three-year cycle. In addition, the City argues that FPL's projected costs are subject to question. The City

bases its position that this Commission should require FPL to implement a three-year lateral trim cycle on the following arguments:

a. Reliability: FPL's average six-year lateral trim cycle would provide less reliable service than a three-year lateral trim cycle. Based on FPL's analysis, the City's number of customer interruptions which would occur under a six-year lateral trim cycle would be 50,000 more than would occur under a three-year lateral trim cycle.

b. Cost-Benefit Analysis: The cost-benefit analysis supporting FPL's six-year lateral trim cycle is based on subjective assumptions which could skew the cost-benefit analysis results. An example is FPL's choice of relying on third-party vendors to conduct vegetation management instead of in-house personnel. FPL has not evaluated whether it could achieve significant savings on tree-trimming by having its tree-trimming performed by FPL employees rather than third party contractors. FPL has performed such analyses in the past. Moreover, City witness Miller testified on cross-examination that he did not believe the three-year trim cycle would result in greater overtime costs, more expenses, or more start-up costs. He noted that in other parts of the Country, trimming is not done during the winter and such resources would be available to FPL. He further testified that employing more tree trimmers would not be necessary if FPL were to use its "Right Tree, Right Place" program and trimmed trees for structural integrity.

c. Proposed Changes in Lateral Trimming Cycle: FPL plans to perform even less tree-trimming in the future than it does currently.

d. Adverse Effects of FPL's Proposed Six-Year Trim Cycle: City witness Miller testified that FPL's proposed six-year lateral trim cycle is too long given the growth rate of trees in South Florida. A six-year lateral trim cycle would allow excessive tree growth followed by extreme trimming that would compromise the health or the stability of the tree. Such trimming practices adversely effect FPL's power lines, increase the danger to personal property, and cause trees to have an unsightly appearance. The adverse effect on FPL's power lines would be the impact of the tree falling into the power lines under conditions of high wind due to instability. Witness Miller concluded that trimming smaller portions of trees by using trim cycles shorter than six years would avoid such conditions and would thereby remove the adverse effect on FPL's power lines.

e. FPL and City Tree-Trimming Communications: The City does not know what cycle FPL is using. FPL does not coordinate its trimming with the City. The City sometimes initiates contact with FPL when FPL's trim practices are problematic.

## 2. FPL

In its post-hearing brief, FPL argues that its proposal of a three-year trim cycle for distribution feeder circuits and six-year cycle for distribution lateral circuits (three-year/six-year proposal) provides the best balance of costs, benefits, and feasibility for FPL and its customers. According to FPL, it will result in substantially increased trimming, both within the City and system-wide, and the City has identified nothing that would make FPL's proposal inappropriate

for the City. FPL bases its position that we should affirm its six-year lateral trim cycle for the City on the following arguments:

a. Reliability: Historically, overall electric reliability statistics and vegetation-related electric reliability statistics for the City are better than FPL's system-wide averages, and FPL's system-wide reliability statistics are significantly better than the national averages. On a system-wide basis, FPL expects to improve distribution reliability due to its vegetation management plan. FPL's tree System Average Interruption Frequency Index (SAIFI), which measures the average number of interruptions due to vegetation per customer in a single year, is expected to decline by 0.6 interruptions per year after ten years based on the six-year lateral trim cycle plan.

b. Cost-Benefit Analysis: FPL's six-year lateral trim cycle is much more cost-effective for FPL's general body of customers than a three-year trim cycle. This is due primarily to the significant increase in costs related to a three-year lateral trim cycle resulting in only a marginal increase in reliability. The cost increase which would be required for a three-year lateral trim cycle is expected to be large due to the expected large increase in labor force and workforce premiums it would entail. FPL witness Miranda testified that the utility would require 700 additional full-time personnel equivalents during the first three years of the plan to achieve a system-wide three-year trim cycle. The cost impacts of FPL advancing from a ten-year average lateral trim cycle to a six-year average lateral trim cycle is expected to be much smaller, but is expected to result in significant gains in reliability.

FPL justifies its cost-effectiveness of its six-year lateral trim cycle by using a comparison of the cost of avoided storm-related customer interruptions for the three-year, six-year, and ten-year lateral trim cycles. The ten-year cycle is the cycle actually practiced by FPL in recent years. The annual average cost of continuing the current ten-year cycle over the next ten years is \$59 million per year. The Company indicates that a three-year lateral trim cycle would result in avoidance of 155,000 storm related outages annually at a cost of \$102.5 million, or \$280 per avoided storm interruption. The Company indicates that its six-year lateral trim cycle would result in avoidance of 100,000 storm-related customer interruptions annually at a cost of \$71.9 million, or \$129 per avoided storm interruption. FPL calculated its average restoration cost per storm-related interruption in 2004 and 2005 to be \$135. Thus, FPL expects that the six-year lateral trim cycle would be more cost-effective than the current lateral trim cycle, thereby achieving lower cost per avoided storm-related customer interruption. On the other hand, a three-year lateral trim cycle would be substantially less cost-effective than the current lateral trim cycle.

As regards outsourcing tree-trimming activities, FPL indicated that it has compared various alternatives of using in-house personnel and outside contractors to perform trimming in the past and has always found that outsourcing is the most cost-effective approach.

Finally, FPL indicates that there is significant execution risk associated with a three-year lateral trim cycle. Constraints on available line-clearing resources and community barriers, such as customer refusals and local tree ordinances, require time to be reduced. Time is needed to educate customers and enact necessary laws and ordinances.

c. Proposed Changes in Lateral Trimming Cycle: Historically, FPL's lateral trim cycle within the City (7.6 years) is shorter than its system-wide average lateral trim cycle (10 years). FPL proposes to shorten its average lateral trim cycle to 6.3 years within the City by 2009, an improvement of 17 percent. By 2009, FPL proposes to tree trim seven of eight laterals located within the City which have not been trimmed in greater than ten years. FPL's proposed program is to achieve an average six-year trim cycle system-wide by 2013. This plan will result in significantly more tree-trimming than has been practiced in recent years.

d. Adverse Effects of FPL's Proposed Six-Year Trim Cycle: Because FPL will be increasing tree-trimming activity in the City, the City's argument that adverse effects will result if FPL's proposed six-year trim cycle is implemented is without merit. The City's criticisms of FPL's past tree-trimming practices, such as alleged extreme cutting, are irrelevant to the issue of identifying the appropriate trim cycle. Moreover, the City's complaints about FPL's past tree-trimming practices are unsubstantiated. City witness Lytle was able to identify only one tree with one-side trimming which had toppled over, and that was during hurricane conditions when numerous other trees not subject to one-side trimming also toppled over. City witness Lytle acknowledged that he could recall only one incident when FPL's tree-trimming resulted in an undesirable re-growth condition known as a "witches broom." Other trim practices cited by the City, such as cutting more than 30 percent of a tree at one time or engaging in trimming that results in "hat racking," are both practices that the City itself has admitted it practices from time to time. FPL witness Slaymaker testified that "drop crotch" cutting, or directional pruning, is an accepted utility tree pruning method that may result in "one-sided cut," but this is an aesthetic issue and does not indicate a weak tree or hazardous condition. Trees that are candidates for being cut back by 30 percent in order to meet standards may instead be removed based upon location, species, and tree condition. The City could only cite one instance of alleged illegal trimming, and that case was resolved by an FPL arborist. The City could not identify any instance of a tree which failed as a result of FPL's trimming practices. FPL effectively addresses rapid tree growth within the City using mid-cycle trimming, hot-spot trimming, and its "Right Tree, Right Place" program.

e. FPL and City Tree-Trimming Communications: FPL has committed to expand its already strong communications and coordination with the City as part of its three-year/six-year proposal. FPL is ready to embark on a partnership between FPL and communities it serves.

## B. Findings

Our findings are based upon a review of the complete evidentiary record made in this case and are premised upon the fundamental direction put forth by this Commission in Order No. PSC-06-0351-PAA-EI. By that Order, we allowed the IOUs the flexibility to propose an alternative plan for lateral circuits if the alternative could be shown to be equivalent to or better than a three-year trim cycle in terms of costs and reliability. In addition, we review this case in the context of the other requirements contained in Order No. PSC-06-0351-PAA-EI. For instance, by that Order, we required each IOU to develop a program to increase coordination with local governments to promote dialogue on key issues in order to reach accommodation or agreement on areas of mutual concern. Tree-trimming is a specific example of such local issues

to be coordinated between the IOUs and local governments. Our analysis below is structured to address the key arguments presented by the parties.

### 1. Reliability

By Order No. PSC-06-0781-PAA-EI, which the City protested, we acknowledged that FPL's system-wide six-year lateral trim cycle was projected to result in 55,000 more storm-related interruptions annually than would be incurred under a three-year lateral trim cycle. We found that FPL's vegetation management plan, including the system-wide six-year lateral trim cycle, was appropriate only for initial implementation because of the lack of forensic data supporting the assumptions the Company put forth related to customer benefits; i.e., reductions in storm-related customer interruptions.

Our primary purpose in adopting a vegetation management storm initiative was to promote system reliability and reduce storm restoration costs. In fact, this was true of each of the initiatives we adopted. At the hearing, our staff cross-examined FPL about its 2006 actual level of distribution reliability performance in the City relative to system averages. FPL witness Miranda testified that FPL's reliability statistics for the City indicated better 2006 performance (lower numbers) compared to the system averages for each statistic. These statistics included the following reliability indices: System Average Interruption Duration Index (SAIDI) -- total minutes of interruption in a year, SAIFI -- frequency of interruptions, and Customer Average Interruption Duration Index (CAIDI) -- restoration duration. In addition, FPL reported the City maintained better performance as measured by the vegetation outages as a percentage of total outages compared to system averages. The City did not challenge FPL's reliability claims. We find that the evidence supports FPL's contention that the City is receiving a higher level of service reliability than the system average. Thus, we find that the record does not support requiring a more stringent vegetation management program (a shorter lateral trim cycle) for the City relative to other areas in FPL's service territory.

### 2. Cost-Benefit Analysis

By Order No. PSC-06-0781-PAA-EI, we proposed to accept, for purposes of initial storm plan implementation, FPL's data supporting its results related to customer benefits (reductions in customer interruptions). The data provided by FPL witness Miranda in this proceeding is the same as FPL filed in 2006 in support of the Company's plan which ultimately resulted in Order No. PSC-06-0781-PAA-EI. The City provided no alternative cost-benefit analysis.

Neither party testified on direct on the question of whether the utility could reduce tree-trimming costs by using in-house personnel to perform lateral tree-trimming and very little evidence exists on this point. In this regard, it is unknown whether FPL could, in fact, save substantially on the cost of tree-trimming by using in-house personnel instead of third party contractors. However, the City provided no evidence to refute FPL's cost-benefit analysis.

We find that FPL's argument regarding constraints on available line-clearing personnel has merit. We have required each IOU to increase its respective vegetation management activities. We find it probable that such an increase in demand for line-clearing resources would

strain supply and that the costs for securing personnel would rise. We find that the estimates of customer benefits presented by FPL are reasonable for initial implementation.

### 3. Proposed Changes in Lateral Trimming

FPL's proposal to accelerate its lateral trim cycle from 7.6 years to 6.3 years by 2009 under its six-year trim cycle plan is evidence that the utility will be performing substantially more lateral trimming in the years ahead. FPL's plan to trim seven of eight laterals that have not been trimmed in over ten years is further evidence of increased planned lateral trimming activity. We find that the record does not support the City's contention, as stated in its brief, that the Company plans to do little to increase its tree-trimming efforts. The City did not show that FPL's six-year tree-trimming proposal for its distribution laterals is inadequate within the City's boundaries.

### 4. Adverse Effects of FPL's Proposed Six-Year Trim Cycle

We find that the City also did not provide evidence supporting its assertion that FPL's tree-trimming practices have resulted in significant electric utility service disruption or safety issues for FPL's distribution facilities located within the City. The City provided no evidence to suggest that FPL was not abiding by national, state, county, or municipality standards for vegetation management. Moreover, FPL has stated its intent to increase the amount of its trimming activities in the City. Thus, the City's contention concerning adverse effects of FPL's six-year trim cycle, such as trees falling into power lines due to extreme trimming, lacks merit. We find that FPL's mid-cycle and hot-spot trimming programs and its "Right Tree, Right Place" program are well suited to deal with certain species of relatively fast-growing trees in South Florida. Other adverse effects cited by the City, such as the aesthetics of some tree-trimming practices (e.g., drop-crotch, one-sided trimming, etc.) are not within the jurisdiction of this Commission to resolve.<sup>11</sup>

### 5. Improved Communications

We find that the City's protest of Order No. PSC-06-0781-PAA-EI is based upon the City's significant misunderstandings of FPL's current and future tree-trimming programs. We further find that such misunderstandings are a direct result of poor communications between the City and FPL. In its post-hearing brief, FPL correctly stated that:

. . . the City's protest was premised upon a fundamental misunderstanding about the FPL's tree trimming activity within the City: its witnesses thought that FPL's three-year/six-year proposal will result in a *decrease* in trimming activity within the City when in fact it will result in a significant *increase*. The City's Director for Parks and Recreation acknowledged that an increase in trimming activity would address his concerns.

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<sup>1</sup> See Order No. PSC-02-0788-PAA-EI, issued June 10, 2002, in Docket No. 010908-EI, In Re: Complaint against Florida Power & Light Company regarding placement of power poles and transmission lines by Amy and Jose Gutman, Teresa Badillo, and Jeff Lessera (finding that the Legislature has not authorized this Commission to enforce issues of aesthetics).

The parties could have met either before or after the City's protest was filed on September 19, 2006, to clarify FPL's then-current tree-trimming program (and 7.6 year lateral trim cycle) and the proposed tree-trimming program (and 6.0 lateral trim cycle) which was scheduled to begin January 1, 2007. We find this failure to communicate especially confounding given that Order Nos. PSC-06-0351-PAA-EI and PSC-06-0781-PAA-EI require FPL to develop and implement a program to increase coordination with local governments on issues such as tree-trimming matters. As discussed in Order No. PSC-06-0781-PAA-EI, FPL provided a plan to increase coordination with local governments. The plan contained a proposal whereby coordination would be achieved by way of an External Affairs representative working with local government officials. Exhibit 18 includes data indicating that the City had experienced better reliability than FPL's system average reliability. On cross-examination, witness Miranda admitted that it would have been possible for FPL to convey that information more quickly than it did after the City filed its protest resulting in this proceeding. We find that if FPL had been effective in communicating its tree-trimming programs and related reliability performance to the City, it is quite possible that much regulatory time and expense could have been avoided in this case.

### C. Conclusions and Rulings

We find it unnecessary to require FPL to institute a three-year trim cycle for its lateral circuits in the City at this time. Insufficient evidence exists to conclude that, for purposes of initial implementation, FPL's proposed six-year lateral trim cycle in the City is not equivalent to or better than a three-year trim cycle in terms of costs and reliability. In filing its protest, the City did not understand that FPL's proposed plan is an improvement of its current program. The City's criticisms of FPL's cost-benefit analysis are lacking in evidence. The City's claims that a six-year cycle would lead to adverse effects on FPL's distribution facilities are unsubstantiated. While the City is correct that a six-year lateral trim cycle is not expected to maintain electric reliability as well as a three-year cycle, the three-year cycle would not be as cost-effective as a six-year cycle and would result in a diminishing return as measured by storm cost savings. The City did not put on evidence to undermine the methodology utilized by FPL to assess the cost-effectiveness of a six-year trim cycle.

We find it appropriate to require FPL to continue to implement its proposed system-wide vegetation management program consisting of average trim cycles of three-years for distribution feeder circuits and six-years for distribution lateral circuits throughout its service area. FPL shall also address rapid tree growth within the City using mid-cycle trimming, hot-spot trimming, and the "Right Tree, Right Place" program. Nonetheless, we shall continue to monitor the progress of FPL's tree-trimming efforts within the City. Thirty days after our decision on this matter becomes final, and by March 1 of years 2008 through 2010, FPL shall file a report with this Commission and with the City which includes (i) an information package containing historical and projected vegetation management activity and related reliability performance, both for the City and system-wide, (ii) an explanation of how FPL's proposed changes to its vegetation management program will impact the City and the storm resilience of the electrical system serving the City, and (iii) documentation summarizing FPL's actions to improve communications with the City.



Based on the foregoing, it is

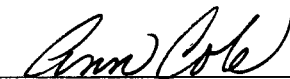
ORDERED by the Florida Public Service Commission that Florida Power & Light Company shall continue to implement its proposed system-wide vegetation management program consisting of average trim cycles of three-years for distribution feeder circuits and six-years for distribution lateral circuits throughout its service area. It is further

ORDERED that Florida Power & Light Company shall address rapid tree growth within the City of North Miami using mid-cycle trimming, hot-spot trimming, and the "Right Tree, Right Place" program. It is further

ORDERED that thirty days after this Order becomes final, and by March 1 of years 2008 through 2010, Florida Power & Light Company shall file a report with this Commission and with the City of North Miami which includes (i) an information package containing historical and projected vegetation management activity and related reliability performance, both for the City of North Miami and system-wide, (ii) an explanation of how Florida Power & Light Company's proposed changes to its vegetation management program will impact the City of North Miami and the storm resilience of the electrical system serving the City of North Miami, and (iii) documentation summarizing Florida Power & Light Company's actions to improve communications with the City of North Miami. It is further

ORDERED that this docket shall be closed after the time for filing an appeal has run.

By ORDER of the Florida Public Service Commission this 30th day of May, 2007.



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ANN COLE  
Commission Clerk

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NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request:

- 1) reconsideration of the decision by filing a motion for reconsideration with the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, within fifteen (15) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or
- 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water and/or wastewater utility by filing a notice of appeal with the Office of Commission Clerk, and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.