ORIGINAL

BEFORE THE PUBLIC SERVICE COMMISSION DOCKET NUMBER: 060198-EI

IN RE: REQUIREMENT FOR INVESTOR-OWNED ELECTRIC UTILITIES TO FILE ONGOING STORM PREPAREDNESS PLANS AND IMPLEMENTATION COST ESTIMATES.

OFFICE OF THE CITY ATTORNEY 776 Northeast 125th Street Miami, Florida 33161 Tuesday, November 7, 2006 3:10 p.m.

SWORN STATEMENT OF: KEITH MILLER

Taken before Linda Jackson Roundtree, Notary Public for the State of Florida at Large, pursuant to Notice filed in the above-styled cause.

LINDA JACKSON ROUNDTREE COURT REPORTING

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FPSC-COMMISSION CLERK

APPEARANCES:

V. LYNN WHITFIELD, ESQ. CITY ATTORNEY 776 Northeast 125th Street North Miami, FL 33161 On behalf of the City of North Miami.

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1	Thereupon:	
2		KEITH MILLER
3	was called as	a witness and, after having been first duly sworn, was examined and testified on
4	his oath as fol	llows:
5		DIRECT EXAMINATION
6	BY MS. WH	ITFIELD:
7	Q	Could you tell us your name, please?
8	A	Keith Miller.
9	Q	And what is your professional address?
10	A	12181 Northeast 13 th Avenue, North Miami, Florida
11	33161.	
12	Q	How are you employed?
13	A	How? In what capacity?
14	Q	Yes.
15	A	Park Superintendent.
16	Q	For who?
17	A	City of North Miami.
18	Q	How long have you been working in that capacity?
19	A	Over 19 years. Well, with the City.
20	Q	Okay. Did you work for Parks or
21	A	Always with Parks.
22	Q	Who did you work with before?
23	A	Miami-Dade County.

1	Q	And could you tell me what is your educational
2	background?	
3	A	I have about 25 years in the field of horticulture,
4	University of	Florida studies, all the way up.
5	Q	Okay. Do you have a college degree in it?
6	A	I don't have a bachelor's. I have an associates in
7	science and	- just shy of a bachelor's in science.
8	Q	Where did you obtain your associate's?
9	A	From Miami-Dade.
10	Q	All right. As the Parks superintendent for the City,
11	could you tell	me, briefly, what some of your duties would
12	include as it r	relates to trees?
13	A	Well, we have about 15,000 trees in the City, give or
14	take a few tho	ousand, and we planted those, along with, you know,
15	their mainten	ance requirements that follows. So, we have a
16	couple of buc	ket trucks that, on a regular basis, trim the trees.
17		We fertilize the trees. We do structural pruning. We
18	do removals a	and replacements, based on vehicular accidents or disease or just attrition.
19	Q	What is structural pruning?
20	A	Structural pruning is looking at the tree to see the
21	basic formation	on of the tree.
22		And structural pruning, in a sense, is making sure
23	that you main	tain the integrity of the tree when you do pruning.
24	Q	And what type of things do you take into consideration
25	when you, say	y, maintain the integrity of the tree?

1	A	Well, let's say, in comparison to a home, if you
2	wanted to add	l or remove a room, you wouldn't remove the bearing
3	wall.	
4	Q	Okay.
5	A	So, with a tree, you don't remove major portions of a
6	tree, because	you can effectively destroy it. And the ISA
7	Q	What's the ISA?
8	A	International Society of Arborists has set certain
9	standards for	trimming. And one of those standards is no more
10	than 30 percent of the canopy can be removed at one time, without effectively destroying the	
11	tree.	
12	Q	Now, you say we have how man thousands of trees in the
13	City?	
14	A	About 15 plus.
15	Q	Okay. And what type of trees are those?
16	A	There's a variety of trees, black olive, live oak,
17	mahogany. Then we have various smaller trees.	
18	Q	Okay. Of the trees you mentioned, the black oak,
19	the mahogany black olive, the oak and the mahogany, are those considered fast-growin	
20	trees?	
21	A	Fast? I would say moderate. Moderate growth is your
22	black olive and mahogany.	
23	Q	And how do you define moderate? What would be the
24	growth rate?	
25	A	Maybe three to four feet a year.

1	Q	Okay. And the City of Miami, does it have any	
2	special designation as it relates to trees? Is it a Tree City		
3	USA or any	USA or anything of that nature?	
4	A	Yes, about 15 years in a row, we have been awarded	
5	Tree City U	SA.	
6	Q	Who awards that, if you know?	
7	A	It's a National Association for Urban Forestry	
8	Counsels.		
9	Q	Do you know why the City of North Miami has been	
10	awarded that for the last 15 years?		
11	A	It's, you know, a recognition of our ability to plant	
12	and maintain urban forestry and canopy within the City.		
13	Q	Now, you're familiar with whether or not there are	
14	trees that grow under power lines in the City?		
15	A	Yes.	
16	Q	Do you know how those trees came into existence, the	
17	majority of them?		
18	A	Well, the founding fathers, in their infinite wisdom,	
19	had set up a lottery system would designate where the trees would be planted from one side of		
20	town to the other, and that at		
21	that period of time did not include taking into consideration		
22	whether or i	not any trees are going under power lines or not.	
23		They just planted them everywhere there was a planting	
24	site. And th	nat was, also, before FPL came out and realizing that some trees were a conflict, and	
25	so they cam	e up with a kind of a better system, you know, the right tree in the right	

1	place type.	
2	Q	Okay. Do you know whether or not there are any
3	rapid growin	g moderate to rapid, fast-growing trees that are
4	under power	lines in the City?
5	A	Oh, yeah, yeah. We probably have a lot more than I
6	would estim	ate. We have Ficus trees, pine trees, holly trees, beschophia trees, these are all
7	what we co	nsider invasive species trees, and they're typically deposited under power lines
8	because they	proliferate so fast, and the seeds are consumed by
9	birds, who s	it on a wire and they deposit the seed with a little
10	fertilizer wit	h it.
11		And, before you know it, those species are popping up all underneath the power
12	lines.	
13	Q	What is the difference between the growth rate between
14	that and the	black olive, which you said is a moderate-growing
15	A	Probably significant. I would say they could grow to
16	at least two	and a half times the rate of growth.
17	Q	And I believe you told us the black olive could be
18	three to four	feet a year, so
19	A	Yeah, that's correct. And that's an estimate. And
20	that's overal	l, not just one limb, you know, but overall.
21	Q	So, you're talking about, then, the fast-growing could
22	grow anywh	ere from six to eight feet in just one year?
23	A	Easily, uh-huh.
24	Q	Is that yes? You said, "Uh-huh."
25	A	Easily. Oh, yes.

1	Q	Now, you mentioned something about the ISA had a
2	standard that	t you should not trim any more than 30 percent of
3	the tree at th	e pruning time.
4		If you look at a fast-growing the rapid-growing
5	that you talk	ed about, the holly and the pine and Ficus, if you
6	are on a six-	year trimming schedule for those types of trees, in
7	your opinion, based on your many years of experience in this area, would you be required	
8	trim off more than 30 percent in	
9	order to get	it away from the power lines?
10	A	Definitely.
11	Q	And why does that Do you know why they say no more
12	than 30 perc	ent should be removed?
13	A	Well, the tree needs the leaves and the branches, too.
14	It's a rec=so	urce for the tree to grow. You know, the leaves
15	take in sunsl	nine. Sunlight turns into chlorophyll. Chlorophyll
16	powers the t	ree's growth.
17	Q	That's the type of thing we learned in Science way
18	back when?	
19	A	Right, right. The leaves are the engine of the tree.
20	Q	Now, if it's if the six-year trim is proposed,
21	would it stimulate more growth for a fast rapid-growing tree,	
22	if you are on the six-year and you have to cut off more than 30	
23	percent, is that going to make a tree grow faster or less, if	
24	it's not dying at that time?	
25	A	You know, that blanket statement, it would be hard to,

- 1 you know -- It would be hard to say a blanket statement like that. What I can say is that in a
- 2 six-year cycle, the trees had
- 3 to be removed from the power lines in accordance to FPL's
- 4 clearance, that could mean that they were trimming off 15 feet of the tree, maybe even 20 feet
- of the tree because they need to be 15 or 20 feet away from the power lines.
- 6 And, typically, from our experience, that they do not
- 7 do structural pruning. They just clear for that distance.
- 8 Q Okay. Let me just stop you there. So, what you are
- 9 telling me is FPL, basically, goes out. They say, "Oh, these
- tree branches are too close to the power line. We're going to
- cut those branches off and cut this back," and they don't take the time to look and say, "Okay.
- For the life of this tree, we
- need to cut off here and here," and places like that, they only
- go to the cutoff, what they need to cut off to get their footage
- 15 from the line?
- Is that what you are telling me?
- 17 A Okay. In a sense, yes.
- 18 Q Okay.
- 19 A They need production, so they're trimming as much as
- 20 they can, as quickly as they can. And they don't really have
- 21 the tree's benefit and the tree's welfare at hand. And so,
- 22 typically, what they do, you know, if there's a limb that could
- remain that's maybe six inches or more, that's within that ten
- 24 feet, let's say, they'll just say ten feet, off it comes, where
- 25 that limb would never interfere with those wires because it's

1	structurally sound.	
2	Q	Okay. So, what you are telling me is based on your
3	experience,	and you've been here 19 years at the City of North
4	Miami, FPL	's concern is distance from power lines, period, not
5	integrity of	the tree?
6	A	Absolutely.
7	Q	Okay. And that can be dangerous to the tree?
8	A	It can, in many ways. If you remove more than 30
9	percent of th	ne tree, it could effectively what they call destroy the tree and it may not come back.
10		If it does come back, what's going to most likely
11	occur, if the	y're not doing proper pruning, is it's going to
12	sprout out and those sprouts are not going to be coming from a proper trim, and that's going to	
13	cause it to generate more sprouts than it normally would.	
14		And because the plant is trying to survive from that
15	extreme type trimming, it's going to put out as many sprouts as	
16	it feels like	it's dying.
17		And those sprouts are going to bunch up around one
18	little cut, an	d they're not going to be attached to the main
19	trunk very -	- they're going to be weakly attached. And that
20	creates ever	a more problem because the slightest little
21	wind comes	along, needless to say, a tropical storm or hurricane, and those limbs could come
22	flying off, b	ecome projectiles and also take down and interfere with the wires even more.
23	Q	Okay. If they're coming in and they're doing this
24	Let's say yo	ou have a city street in North Miami that has, basically, a beautiful canopy of trees,
25	and FPL is	just coming in there whacking the trees away, let's say the lines FPL

1 power lines are toward the streets, so, the cutting is going to be on the sides, where the lines 2 are; right? 3 A Right. 4 They're not going to go around and trim the whole Q 5 tree. They're not worried about what's facing the house; correct? 6 A Correct. 7 Q That would affect the canopy; correct? 8 A Yes, and it would make the tree unavailable. 9 Q Because you're only cutting from one side? 10 Yes. What's happened is now, the tree is lopsided. A 11 And again, a tropical storm or hurricane, and off that tree goes in the direction of the resident's 12 home or on top of their home or car. 13 Q And the longer you go without trimming a fast-growing 14 tree, the more you have to trim it to get the distance you need, 15 because it's growing so fast; is that a correct statement? 16 Α Yes, yes. Okay. Now, can you tell me do you know whether or not 17 Q 18 there's a difference as it relates to trees and the growth rate in South Florida and the growth rate in North Florida? 19 20 A Absolutely. South Florida is very unique to any other part of Florida because it's so sub-tropical down here that the 21 22 variety of trees are different, and the rapid-growth is, also, 23 a consideration. 24 We don't have cooler climate. We have pretty much year round growth here.

25

And so any kind of, you know, when they

- 1 do, like, a survey and they say, you know, "Based on our survey, 2 you know, We've determined X, Y, Z," well, that survey maybe 3 taking place in three quarters of Florida, and they consider it, 4 but it's not considering the bottom portion of Florida, which is 5 West palm Beach down. It's very different down here. 6 Q So, where a six-year trimming cycle might work in 7 northern Florida, it wouldn't work in South Florida because of 8 our climate? 9 A And the different types of tree species that grow here 10 and don't grow in North Florida. 11 Q Like which ones? 12 Α Ficus trees, Australian pine trees, holly, 13 berschophia. A lot of tropical --14 O And a lot of our rapid growth trees that don't grow up 15 there? 16 Α Typically, you don't have the same species. You may 17 have rapid growth trees up there, but I'm not familiar with them. I am familiar with a large 18 quantity of rapid-growing 19 trees down here. 20 Q Okay. So, it would be better if you looked at 21 trimming cycles based on the region that you are in and the type of trees that they have and 22 customize a trimming cycle for that
- A Absolutely, yeah, this region in particular.

area, as opposed to one blanket for the state?

23

Q Okay. What about a three-year trimming cycle? Is

1	that recommended for the lateral lines and the main lines, that keep those clear?	
2	A Yeah. A three-year cycle is preferred because what,	
3	effectively, you are doing is training the tree to grow around	
4	wires. And when you trim on a three-year lateral cycle and a	
5	five-year main line cycle, you have the capability of training	
6	the tree, and it would be structurally sound, and then you wouldn't have all of these wea	
7	attached limbs and people calling and saying, "they hatracked my tree. The destroyed my	
8	treatment. The tree is lopsided. It doesn't have, you know, any kind of decent shape to it," and	
9	it becomes more of a hazard.	
10	Q Have you had those type of calls?	
11	A Yes.	
12	Q What do you mean by hatrack?	
13	A When they arbitrarily cut off the top of the tree at	
14	any level, no structural pruning, no consideration for the tree.	
15	Q Okay. And I think you said they could end up with	
16	lopsided trees?	
17	A Right. We talked about that, because now, the tree is	
18	unbalanced, and that tree could go over in a high wind event and	
19	fall on somebody's car or in the street, could kill somebody.	
20	One of the other thing, too, with hatracking is you'll	
21	have to continue, if once you defectively cut off the top of the tree, you have to come back and	
22	continue to cut the new branches coming up. And if you would wait, as the suggested six	
23	years, those limbs would be in the wire.	
24	Q Okay. So, you need to come back to make sure you're	
25	keeping them down below the level that you want them?	

1	A	Right. So, if they wanted a ten-year clearance and
2	wanted to tri	im on a six-year cycle, they would probably have to trim for 20 feet, to account for
3	the rapid gro	owth, after the
4	limbs were r	removed.
5		So, now you're talking about, you know, trees only
6	grow 40, 50	feet, so, if you are trimming 20 feet of it off
7	Q	Half the tree is gone?
8	A	Yeah.
9		MS. WHITFIELD: All right. That's all the
10	ques	tions I have, Mr. Miller. Thank you very much.
11		(Thereupon, taking of the sworn statement was
12	concluded.)	
13		
14		
15		
16		
17		
18		KEITH MILLER
19		
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REPORTER'S DEPOSITION CERTIFICATE STATE OF FLORIDA COUNTY OF DADE I, LINDA JACKSON ROUNDTREE, Shorthand Reporter, certify that I was authorized to and did stenographically report the foregoing sworn statement; and that the transcript is a true record of the testimony given by the witness. I further certify that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorneys or counsel connected with the action, nor am I financially interested in the action. Dated this ___ day of November 2006. LINDA JACKSON ROUNDTREE Shorthand Reporter