

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

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In the Matter of:

REVIEW OF 2007 ELECTRIC INFRASTRUCTURE
STORM HARDENING PLAN FILED PURSUANT TO
RULE 25-6.0342, F.A.C., SUBMITTED BY
TAMPA ELECTRIC COMPANY.

DOCKET NO. 070297-EI

REVIEW OF 2007 ELECTRIC INFRASTRUCTURE
STORM HARDENING PLAN FILED PURSUANT TO
RULE 25-6.0342, F.A.C., SUBMITTED BY
PROGRESS ENERGY FLORIDA, INC.

DOCKET NO. 070298-EI

REVIEW OF 2007 ELECTRIC INFRASTRUCTURE
STORM HARDENING PLAN FILED PURSUANT TO
RULE 25-6.0342, F.A.C., SUBMITTED BY
GULF POWER COMPANY.

DOCKET NO. 070299-EI

REVIEW OF 2007 ELECTRIC INFRASTRUCTURE
STORM HARDENING PLAN FILED PURSUANT TO
RULE 25-6.0342, F.A.C., SUBMITTED BY
FLORIDA POWER & LIGHT COMPANY.

DOCKET NO. 070301-EI



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THE .PDF VERSION INCLUDES PREFILED TESTIMONY.

VOLUME 2

Pages 125 through 306

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BEFORE: CHAIRMAN LISA POLAK EDGAR
COMMISSIONER MATTHEW M. CARTER, II
COMMISSIONER KATRINA J. McMURRIAN
COMMISSIONER NANCY ARGENZIANO
COMMISSIONER NATHAN A. SKOP

DATE: Tuesday, October 2, 2007

TIME: Commenced at 9:30 a.m.
Concluded at 4:50 p.m.

PLACE: Betty Easley Conference Center
Room 148
4075 Esplanade Way
Tallahassee, Florida

REPORTED BY: JANE FAUROT, RPR
Official FPSC Reporter
(850) 413-6732

APPEARANCES: (As heretofore noted.)

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P R O C E E D I N G S

(Transcript follows in sequence from Volume 1.)

COMMISSIONER CARTER: We will go back on the record.

In our last episode of don't throw the baby out with the bath water, I think we had -- oh, that was the wrong script.

(Laughter.)

Mr. Wright, you're recognized.

MR. WRIGHT: Thank you, Mr. Chairman.

EDWARD J. BATTAGLIA

continues his testimony under oath from Volume 1:

CONTINUED CROSS EXAMINATION

BY MR. WRIGHT:

Q Good afternoon, Mr. Battaglia. The pending question that --

COMMISSIONER CARTER: Let's take five.

(Off the record; technical difficulties.)

COMMISSIONER CARTER: We are back on the record.

You're recognized, Mr. Wright.

MR. WRIGHT: Thank you again, Mr. Chairman.

BY MR. WRIGHT:

Q Good afternoon, again, Mr. Battaglia.

The pending question that I was trying to ask you when we broke for lunch is where, geographically or physically, is Gulf conducting the distribution pilot projects relative to undergrounding in storm surge areas as reflected or referred to

1 at Page 10 of your testimony?

2 A For Gulf's underground conversions new installations,
3 as I stated probably in other parts of my testimony, they are
4 customer driven at this point in time. So as far as where any
5 particular conversion may occur, or new underground
6 installation involved with new business and so on, it's
7 difficult to say as far as where those particular types of new
8 construction will occur and conversion of existing.

9 What I was referring to in my testimony was in
10 Appendix 6 of the storm hardening plan, I was referring to our
11 new specifications to apply storm hardening to our underground
12 jobs that did occur, based on, again, being customer driven.
13 And so when you look in Gulf's storm hardening plan, and you
14 look in Appendix 6, that's where you'll see the specifications
15 for ball type flush-mounted switchgear, heavy-duty concrete
16 lids encasing the undergrounding feeder conduits in concrete,
17 utilizing methods such as locating the pad mounts, and if we do
18 use above-ground switchgear in areas that would reduce the
19 opportunities for them being impacted by storm surge by taking
20 into account whatever protection is offered by the natural lay
21 of the land or in buildings.

22 Q I apologize if I am just dense, but your testimony
23 states clearly that Gulf is conducting several distribution
24 pilot projects, and the question I was trying to ask, Mr.
25 Battaglia, is where geographically those projects as referred

1 to in this testimony are being conducted? Can you answer that
2 question, Mr. Battaglia?

3 A Based on ones that have occurred up to this point?

4 MR. WRIGHT: Mr. Chairman, the question I'm trying to
5 ask him is what he is referring to in his testimony.

6 COMMISSIONER CARTER: Do you know of any that have
7 been done in any geographical location within the confines of
8 your service area?

9 THE WITNESS: Yes, sir. Pensacola City Beach is a
10 good example of a large project that has occurred in recent
11 history. We have had several in the Destin area, Main Street
12 Destin that I recall in particular, and some in the Panama City
13 Beach area that I believe it was several projects. Going
14 forward, as far as, again, those type of projects, since they
15 are customer driven and we do have some that are on the drawing
16 board, but until they are accepted by the customer it is
17 difficult to say whether or not those are going to occur or
18 not.

19 COMMISSIONER CARTER: Mr. Wright.

20 BY MR. WRIGHT:

21 Q Mr. Battaglia, could I ask you to look at Appendix
22 7 of Gulf's storm hardening plan. It's the legal-sized
23 spreadsheet.

24 A Yes, I'm there.

25 Q I'd like to ask you to look, if you would, at Row P

1 there which appears to relate to mitigating flood and storm
2 damage to underground and supporting overhead facilities
3 piloted project incremental costs. And my question is does the
4 71,680 expended in '05 and the 446,000 expended in
5 '06 correspond to the projects you just mentioned?

6 A Yes, sir. Basically what is shown there as far as
7 cost represents that incremental difference of those items that
8 are referred to in Appendix 6 for storm hardening measures that
9 were associated with projects that were done as far as those
10 years and in looking at it going forward.

11 Q Thank you.

12 MR. WRIGHT: Mr. Chairman, if Mr. Battaglia would
13 like to take a water break, that's fine with me.

14 THE WITNESS: I think I'm fine now.

15 COMMISSIONER CARTER: How much more time do you think
16 you will need with Mr. Battaglia?

17 MR. WRIGHT: Probably on the order of half an hour,
18 Mr. Chairman. I was just trying to be respectful of his voice.

19 COMMISSIONER CARTER: I think he's ready.

20 THE WITNESS: I appreciate that, but I'm ready.

21 BY MR. WRIGHT:

22 Q Mr. Battaglia, referring to Page 24 of Gulf's amended
23 storm hardening plan, the statement is made there, "Gulf
24 recognized and piloted underground system storm hardening
25 design changes in response to lessons learned from Ivan in

1 2004."

2 Would I be correct to understand that what you just
3 described using flush-mounted cabinetry and stainless steel
4 gear are the principal lessons learned from Ivan in 2004?

5 A Yes, to a certain degree. For example, on the
6 stainless steel transformers, that's not entirely correct in
7 the sense that Gulf has recognized the need to use those types
8 of installations prior to Ivan, and it has been part of our
9 specifications for many years in beach type areas. As far as
10 the specifications, moving forward with the vault type
11 installations, items such as, again, locating the pads where it
12 mitigates damage and all, that's correct. That's part of it.

13 Q Thank you. Were there any other lessons learned from
14 Ivan that would be applicable here than those you have already
15 discussed?

16 A I think there are many lessons that we learned from
17 Ivan that are reflected in our storm hardening plan, both on
18 the overhead side and on the underground side, and also with
19 how we perform our restoration after a storm as far as helping
20 us to fine tune everything from logistics to communications,
21 staging of materials and so on. As far as directly as far as
22 back to, say, overhead, you know, again looking at every
23 opportunity to storm harden our system, one of the items that
24 we came up with as far as we recognized based on feedback
25 direct experience, field experience by restoration crews was

1 doing some things that were very basic such as in our
2 construction practices adding another spool rack, an insulator
3 in which we connect our service wire to at the transformer and
4 then as the service runs to the house, if the service is
5 impacted by flying debris or what have you, that it goes ahead
6 and puts that strain at those spool racks and not let it be
7 transferred up to the transformer and damage transformer
8 bushings and basically escalating the damage.

9 And, again, there is many of those that are part of
10 the storm hardening plan, part of what we have adopted in our
11 specs in trying to -- as far as lessons learned and continuous
12 improvement.

13 Q Thank you.

14 With regard to the lessons you learned relative to
15 undergrounding, did Gulf use those lessons to define or
16 establish its underground storm hardening specifications for
17 underground facilities as those are set forth in Appendix 6 of
18 Gulf's plan?

19 A Yes, that was part of formulating those particular
20 specifications as far as improvements and going forward.

21 Q Thank you. If you can, can you relate -- can you
22 state what level of confidence you have that those underground
23 storm hardening specifications set forth in Appendix 6 will be
24 effective?

25 A Again, based on as far as the degree of effectiveness

1 of those particular items, based on what we have observed
2 directly in the field, we feel that many of them hold high
3 potential. But at the same time, as far as a trial of fire so
4 to speak, that remains to be seen. But we feel that such
5 things as covering the conduit with concrete, putting those
6 heavy-duty vaults in as far as flush-mounted switchgear based
7 on what we know at this point hold high potential.

8 Q Can you in the same context say how confident you are
9 that your guidelines for placing underground switch cabinets
10 and transformer cabinets on the landward side of roads or
11 sheltered by other buildings would be effective?

12 A And, again, we feel that in moving forward, based on
13 what we have seen, we feel that they do have a high potential
14 to be effective, but at the same time realizing that they may
15 be up to a certain point with certain types of storms and
16 certain associated storm surges, so to what degree, to what
17 level of category storm that they may be effective, that is
18 still an unknown for Gulf.

19 Q Thank you. I have a couple of questions for you that
20 relate to Gulf's reliability and storm hardening initiatives
21 report dated March 1st, 2007. Do you have a copy of that
22 document with you?

23 A I should in short order. Yes, sir.

24 Q Thank you. I would like to ask you to look at Page
25 40 of that document, Mr. Battaglia.

1 MR. WRIGHT: Mr. Chairman, these are brief questions,
2 and I don't intend to mark this as an exhibit. It's
3 voluminous.

4 A Yes, sir.

5 Q At Page 40, Gulf is discussing the activity and costs
6 incurred with regard to gathering data relative to underground
7 and overhead. Is that an accurate characterization?

8 A Yes, sir.

9 Q And the document says Gulf will collect data on
10 outages as they occur with respect to underground and overhead
11 facilities, correct?

12 A Yes.

13 Q A couple of questions beyond that. Will the data
14 collected identify the customers' status as an overhead surge
15 or underground surge customer?

16 A Yes, I believe it will, based on our trouble call
17 management system under which this data would be collected.

18 Q Will it also identify for any given outage where the
19 outage occurred? And if I can clarify my question, if there is
20 a distribution route that is part overhead and part
21 underground, will your data collection program as set forth in
22 this document identify whether outages occurred on the overhead
23 piece of the system or the underground piece of the system?

24 A Yes, it will.

25 Q I would like to ask you to look briefly at the last

1 short paragraph in that Section 10.1, the last sentence of
2 which reads, "The costs for this are minimal as it utilizes
3 existing systems and processes." I'm just trying to understand
4 what that means. What does it mean when it says costs are
5 minimal?

6 A In that particular case, the cost that it's referring
7 to is what we had to do in order to make it a part of our
8 existing data collection process as far as our trouble call
9 management system. That we were able to program it to add the
10 appropriate drop down boxes so that our operators could key in
11 the correct information based on the reports by the crews and
12 capture that for us.

13 Q So it was a software modification that will now
14 enable you to enter data, is that accurate?

15 A That's correct. Back during the -- when this was
16 done as far as back during the first part of the year, we had
17 set in place the needed modifications so we could test it and
18 be sure that it would do what we expected it to do.

19 MR. WRIGHT: Thank you.

20 Mr. Chairman, Mr. Battaglia, during the break I
21 handed out, in the interest of time, two documents. One is
22 Gulf's response to Panama City Beach's Interrogatory Number 16,
23 which I asked to be marked as Exhibit 47, and the other was
24 Gulf's responses to Panama City Beach's Interrogatories 39 and
25 40, which I asked to be marked as Number 48. And I have a

1 couple of questions for the witness about Exhibit 47.

2 BY MR. WRIGHT:

3 Q First, Mr. Battaglia, are you familiar with these
4 interrogatory answers?

5 A Please excuse me for a second. I thought you said
6 Interrogatory 47?

7 Q No, I'm sorry. It's Interrogatory Number 16, which
8 has been marked as Exhibit 47.

9 A I apologize. Yes, I have got it. And, yes, I'm
10 familiar with it.

11 Q All right. And looking at the very last page of that
12 exhibit, which is Page 7 of 7 of Gulf's response, will you
13 agree that in 2004 and 2005 Gulf spent just slightly more than
14 \$200 million in storm restoration costs?

15 A Based on what's there, correct.

16 Q Can you tell us how much of that was spent for
17 restoring overhead facilities and how much was spent -- I
18 should say overhead distribution facilities -- and how much was
19 spent for restoring underground distribution facilities?

20 A Based on the information that's there, I cannot tell
21 you that as far as, or recall as far as having that type of
22 breakdown of that existing information.

23 Q Do you know whether that information is available?

24 A That I do not know.

25 Q So would it be fair to say that you did not consider

1 any such information in your work on Gulf's storm hardening
2 plan?

3 A Please repeat the question.

4 Q Would it be fair to say, then, based on your previous
5 response, that you did not consider any such information in
6 connection with your work on Gulf's storm hardening plan?

7 A Based on the previous answer, that leads to an
8 assumption as far as me saying yes, but that is not entirely
9 correct. And, again, what I would refer to is that as far as
10 hard numbers to differentiate between the two after a storm
11 restoration process, that we do not have. But at the same
12 time, from my experience and personally being involved in
13 multiple storm restoration efforts, I do know and have seen and
14 observed as far as what it takes to put that overhead system
15 back together and the associated problems with it, and to put
16 that underground system back together and the problems
17 associated with it.

18 And even though I do not have the dollars that I can
19 state what that is, I have observed as far as how long those
20 crews take in doing that process. I do have an idea as far as
21 the value of the materials associated with those repair
22 processes that leads me to the conclusion that based on those
23 observations, those field observations, that on those
24 one-for-one bases that underground is more costly in performing
25 those type of activities after a major storm.

1 Q I would like to ask you to look, if you would, at
2 what has been marked as Exhibit 48?

3 A Which is interrogatory --

4 Q It's Gulf's answers to Panama City Beach's
5 Interrogatories 39 and 40. It's the second document I handed
6 out during the break.

7 A I've got it.

8 Q Okay. Just to confirm, the answers to these
9 interrogatories are true and correct to the best of your
10 knowledge, is that correct?

11 A Yes, sir.

12 Q Thank you.

13 Are you familiar with a term continuing property
14 record?

15 A No, sir, I'm not an accountant.

16 Q Are you familiar with any Gulf records that identify
17 the cost of distribution facilities as they are installed in
18 the field?

19 A Assuming that -- based on as far as new installations
20 for underground and overhead, or are you referring to
21 restoration efforts?

22 Q I would actually appreciate your answering both of
23 those questions if you can.

24 A As far as new installations, to a certain degree,
25 based on the current work order process for estimating those

1 type of jobs, I have some degree of feel for that. As far as
2 the restoration process as what I stated before, again other
3 than my field type observations I don't have a direct, or have
4 the data involved with those direct costs.

5 Q In the restoration process, is there some sort of
6 document like a work order document that would be created that
7 would identify facilities that were installed in connection
8 with the restoration effort?

9 A In that particular case, as far as high level, there
10 are what I would call a work order to collect the charges
11 associated with doing all of the restoration work, which I have
12 to assume that's what the figures shown in the other response,
13 how that was generated.

14 Q Well, let me ask you kind of a real world kind of
15 question. Suppose you've got a crew out there doing storm
16 restoration work, and on a given day they replaced ten poles
17 and 750 feet of conductor. Is that an okay example to work
18 with so far?

19 A Yes, sir.

20 Q Will there be a work order document that would
21 identify that installation of those poles and that conductor?

22 A Based on my field experience up to this point as far
23 as a work order that would give you that type of granular cost
24 information for restoring a piece of a feeder and a piece of
25 the underground, not that I'm aware of.

1 Q In that answer you referred to -- I think you stated
2 you're not aware of that kind of document that would provide
3 data at that granular level. Is there some document within
4 Gulf's accounting or inventory system that would identify
5 poles, conductor -- poles and conductor installed during storm
6 restoration?

7 A And, again, I'm not an accountant, and as far as the
8 process that occurs during storm restoration, I cannot say I
9 have a high degree of familiarity with that other than knowing
10 that at least up to this point we do have high level work
11 orders in which to collect those charges. And I would have to
12 assume that in order to break it out as far as the appropriate
13 purc's (phonetic) and poles and wire that that is part of the
14 process that accounting performs.

15 Q In your work on Gulf's storm hardening plan, did you
16 attempt to research any such information?

17 A Based on at least what I was aware of up to this
18 point, no, I did not attempt to research that type of
19 information because of what I have been aware of to this point,
20 it didn't exist.

21 MR. WRIGHT: Thank you. Mr. Chairman, I think I have
22 just a few more questions.

23 COMMISSIONER CARTER: You're on a roll, go ahead.

24 MR. WRIGHT: I'm working on it, yes, sir.

25 BY MR. WRIGHT:

1 Q Mr. Battaglia, I would like you to look at Page 14 of
2 Gulf's amended storm hardening plan. And my question, question
3 or two are going to relate to the geographic information
4 system, or GIS information, the discussion of which begins at
5 Page 13. So if you want to look at that, that is fine. I will
6 get to the point and here it is.

7 The document states that Gulf expects to complete the
8 initial mapping of its transmission system into its GIS within
9 the next six years. Is that an accurate characterization of
10 Gulf's plan with regard to that item?

11 A For the transmission system, again, based on what we
12 have in the plan there, yes, that's correct.

13 Q Do you believe that this is an adequate pace to
14 accomplish the mapping of Gulf's transmission system
15 information into its GIS?

16 A Based on my knowledge as far as on the transmission
17 side, again, I'm on the distribution side, and I have to assume
18 that those that provided that information felt that it was the
19 correct pace.

20 Q Looking at the paragraph regarding the distribution
21 GIS, there is no -- I did not see anyway, any corresponding
22 information as to when Gulf expects to complete that mapping.
23 Can you tell us when Gulf expects to complete the mapping of
24 the distribution system into its distribution GIS?

25 A The mapping of Gulf Power Company's distribution

1 system into GIS is complete. And, again, it's evolving every
2 day as far as new facilities are being built, adjustments made
3 to feeders. Obviously it's in a constant state of evolution.
4 But as far as getting the initial base in there, it's complete.

5 Q Mr. Battaglia, I'm looking at a copy of the
6 Commission's electric infrastructure storm hardening rule,
7 which I read in Section 25-6.0342, Sub 4, to require a detailed
8 description of the utility's deployment strategy, including the
9 communities and areas within the utility's service area where
10 the improvements are to be made. Are you familiar with that
11 provision of the Commission's rule?

12 A Yes, sir.

13 Q In that connection, I was looking for where Gulf
14 attempted to comply with that provision, and it appears to me
15 that that would be with regard to a Schedule 10 of your Exhibit
16 EJB-1, and also the plan at Pages 26 and 27. And my first
17 question is am I correct that that is the information provided
18 by Gulf in its endeavor to comply with that provision of the
19 rule?

20 A In our storm hardening plan, again, were you
21 referring to Pages 26 and 27? That's correct.

22 Q Yes, sir, Sections 9-1 and 9-2, and then Schedule
23 10 of your exhibit.

24 A Schedule 10 in my direct testimony does show part of
25 it as far as the extreme wind loading.

1 Q I did not see there a detailed subscription of the
2 communities affected. Can you show me what I missed or is this
3 what there is?

4 A If you go to Gulf's storm hardening plan and refer --

5 Q Excuse me, were you looking at the amended storm
6 hardening plan?

7 A That is correct, the amended storm hardening plan.

8 Q Okay.

9 A And in addition to what you've already stated as far
10 as the write-ups in the previous pages, if you look at Appendix
11 1, the service area map that's shown there indicates the
12 projects that Gulf will be doing under the extreme wind
13 loading, which is, again, part of the plan.

14 Q I'm looking at the map, and I note that it has got
15 the extreme wind loading standard contours on it. Do the
16 stars -- the stars indicate where the projects are, is that
17 accurate?

18 A That is correct.

19 Q Thank you.

20 You don't have any experience as a city manager or
21 assistant city manager, do you?

22 A No, sir.

23 Q As a city planner, urban planner?

24 A No, sir.

25 Q Municipal or county emergency services administrator?

1 A No, sir.

2 Q Do you have any testimony to offer as to how such
3 city or county personnel could use this to understand exactly
4 what was doing on here as set forth in your plan?

5 A In looking at what we have set forth in our plan
6 here, it does provide, in Gulf's opinion, the needed detail for
7 the cities and municipalities to get initial grasp as far as
8 what projects are occurring and where. And then in addition to
9 that, Gulf has very good relationships established throughout
10 all of our communities, and the necessary Gulf Power folks in
11 place to help explain and elaborate upon the details of the
12 projects, depending upon the interest expressed by each city or
13 each emergency operation center.

14 And especially in the case of the emergency
15 operations centers, Gulf has obviously because of the mutual
16 need there in communications and so on, Gulf has long
17 established good communications with those departments, those
18 individuals, to be able to explain any facet of our storm
19 hardening plan and to be proactive in -- as opportunities are
20 seen as far as with particular projects to discuss that with
21 them.

22 Q Thank you. I just have a couple more questions.

23 Do you have a working knowledge of what the term
24 optimal means?

25 A Yes, sir.

1 Q Would you agree -- this is an abstract kind of
2 question. Would you agree that if the incremental benefits of
3 making an incremental expenditure on a given program or
4 measure, if the incremental benefits are greater than the
5 incremental costs, that making that additional expenditure
6 would be tending toward optimizing the program?

7 A Yes, to a certain degree. But, in looking at those
8 type of situations, you have to look at more than just the
9 surface numbers and understand what the numbers mean, versus at
10 times taking them just for face value as far as how they are
11 developed and in what respect do they apply to a particular
12 situation.

13 Q And referring back to Appendix 7 of the storm
14 hardening plan, do I conclude correctly that Gulf is not able
15 to estimate the benefits from the undergrounding activities
16 indicated at Row P or Row O, the letter O, at this time?

17 A At this particular time, that's correct.

18 MR. WRIGHT: Thank you.

19 Thank you, Mr. Chairman; that's all the questions I
20 have for Mr. Battaglia.

21 COMMISSIONER CARTER: Commissioners, my plans are, if
22 it is appropriate, is to see if there are other parties that
23 have questions, and then maybe go to staff and then to
24 Commissioners. But if you have questions at this point in
25 time, obviously at any time any Commissioner can ask any

1 question that you would like. Would that be appropriate?

2 Any other question from any party on this witness
3 before I recognize staff? Staff, you're recognized.

4 MS. BENNETT: Thank you, Chairman Carter.

5 CROSS EXAMINATION

6 BY MS. BENNETT:

7 Q Mr. Battaglia, my name is Lisa Bennett. We have
8 spoken earlier in your deposition. I just have a few
9 questions.

10 Prior to the submission of its storm hardening plan
11 in this docket, it is true that Gulf submitted a ten-part
12 initiative, is that correct?

13 A That is correct.

14 Q And was this ten-part initiative approved by the
15 Commission in Order PSC 060781 and PSC 060947?

16 A That is correct.

17 Q And would you agree that the Gulf ten-part initiative
18 is mostly annual system-wide activities?

19 A Yes.

20 Q Did Gulf's proposed hardening plan, the one that's
21 the subject of this docket, include the ten-part initiative
22 previously approved by the Commission?

23 A Yes, it did.

24 Q Would you agree that the proposed hardening plan in
25 this docket is a three-year look ahead?

1 A Yes, I would.

2 Q And is it subject to change as more information is
3 gathered and costs are refined?

4 A Yes.

5 Q Would you agree that Gulf's previously approved
6 ten-part initiative and the Gulf proposed hardening plan are
7 complementary to each other?

8 A Yes, I would.

9 Q Would you agree that Gulf is responsible for pursuing
10 the most cost-effective storm hardening projects?

11 A Yes, I would.

12 Q And would you agree that the Public Service
13 Commission expects each utility to prudently manage its
14 resources?

15 A Yes.

16 Q And would you agree with me that the Commission's
17 overarching objective to Rule 25-6.032 of the Florida
18 Administrative Code is to promote a corporate culture that
19 reduces storm restoration costs and storm-caused outages to
20 affected parties?

21 A Yes, I would.

22 MS. BENNETT: I have no further questions.

23 COMMISSIONER CARTER: You have no further questions?

24 MS. BENNETT: No more questions.

25 COMMISSIONER CARTER: Commissioners, any questions?

1 Mr. Badders, you're recognized for redirect.

2 MR. BADDERS: No redirect. Thank you.

3 COMMISSIONER CARTER: Okay.

4 Ms. Fleming, let's get ourselves in the proper
5 posture here.

6 MR. BADDERS: At this time I would like to move
7 Mr. Battaglia's exhibit into the record.

8 COMMISSIONER CARTER: That would be exhibit -- on our
9 list it would be Exhibit 18, is that correct?

10 MR. BADDERS: That is correct.

11 MS. FLEMING: That is correct.

12 COMMISSIONER CARTER: Yes, ma'am, you are recognized.

13 COMMISSIONER ARGENZIANO: I need to make a comment,
14 because I'm not sure of what the last line of questioning was
15 from staff, and I just need to ask. It seems that we are on
16 the defensive, and I'm not sure what the line of questioning
17 was intending. I mean, you don't work for Gulf Power, but I
18 don't understand why that line of questioning came up the way
19 it did.

20 MS. BENNETT: We're just filling out the record for
21 the recommendation later.

22 COMMISSIONER ARGENZIANO: Thank you.

23 COMMISSIONER CARTER: And Commissioner Skop.

24 COMMISSIONER SKOP: Thank you, Mr. Chair.

25 Equally, I have the same concern, and I am just going

1 to bring it out and say it directly to the witness. But there
2 are situations where counsel on cross-examination have
3 propounded questions, I believe Mr. Wright was seeking to
4 devote testimony on cross-examination from the witness, and the
5 witness was -- ultimately I think the answer was I don't know.
6 But, again, instead of being evasive, if the witnesses would
7 just answer the questions that might also help round out the
8 record for the benefit of the Commission, also.

9 Thank you.

10 COMMISSIONER CARTER: Thank you, Commissioners.

11 Any other comments from any other Commissioner before
12 we proceed further? I think we are in the process of admitting
13 Exhibit 18 for Mr. Battaglia and his testimony. That would
14 just be Exhibit 18, is that correct, Ms. Fleming?

15 MS. FLEMING: Yes, that's correct, Exhibit Number 18.

16 COMMISSIONER CARTER: Any objection? Hearing none,
17 show it done.

18 (Exhibit 18 admitted into the record.)

19 MR. WRIGHT: And, Mr. Chairman, I would move the
20 admission of Exhibits 45, 46, 47, and 48.

21 COMMISSIONER CARTER: What have been previously
22 marked Exhibits Number 45, 46, 47, and 48. Any objection?

23 MR. BADDERS: No objection.

24 COMMISSIONER CARTER: Show it done.

25 (Exhibits 45 through 48 admitted into the record.)

1 COMMISSIONER CARTER: Ms. Fleming, procedurally where
2 are we now with this witness?

3 MS. FLEMING: If we are concluded with Mr.
4 Battaglia's direct testimony, I suggest that we can move on to
5 the next witness, Mr. McDaniel.

6 COMMISSIONER CARTER: Okay. Call your next witness.

7 MR. BADDERS: Thank you. We call Allen McDaniel to
8 the stand.

9 ALLEN G. MCDANIEL
10 was called as a witness on behalf of Gulf Power Company, and
11 having been duly sworn, testified as follows:

12 DIRECT EXAMINATION

13 BY MR. LANGLEY:

14 Q This is Eric Langley for Gulf Power.

15 Mr. McDaniel, were you in here earlier when the
16 witnesses were sworn in?

17 A Affirmed, I was.

18 Q Please state your full name and business address.

19 A My name is Allen G. McDaniel. My business address is
20 One Energy Place, Pensacola, Florida 32520.

21 Q And by whom are you employed and in what capacity?

22 A I am employed by Gulf Power Company as the Project
23 Services Manager of Power Delivery.

24 Q Are you the Allen McDaniel that prefiled direct
25 testimony in the Gulf Power docket consisting of eight pages?

1 A Yes, sir.

2 Q Do you have any changes or corrections to that
3 testimony?

4 A No.

5 Q If I were to ask you the same questions today, would
6 your answers be the same?

7 A Yes, they would.

8 Q Do you have any exhibits attached to your direct
9 testimony that you will be referring to?

10 A No, I do not.

11 Q Mr. McDaniel, what is the purpose of your direct
12 testimony?

13 A The purpose of my testimony is to explain and address
14 Sections 11.0 and 12.0 of Gulf's storm hardening plan as
15 amended on August 14th, 2007. I will discuss how each section
16 addresses and supports the requirements set forth in the Rules
17 25-6.0341 and 25-6.0342, and explain how Gulf's third-party
18 attachment standards and procedures assure, as far as
19 reasonably practical, that third-party attachments do not
20 impair electric safety, reliability, or pole loading capacity
21 on our system.

22 MR. LANGLEY: And to clarify, Mr. McDaniel's
23 testimony is in Docket 070299-EI.

24 And at this time we tender Mr. McDaniel for
25 cross-examination.

1 COMMISSIONER CARTER: Any questions? Mr. Wright.

2 MR. WRIGHT: Thank you, Mr. Chairman. I have a very
3 few questions for --

4 COMMISSIONER CARTER: One second. Any questions by
5 any other parties, or just Mr. Wright is the only one with
6 questions?

7 MR. SEIVER: FCTA has no questions, Mr. Chairman.

8 MR. LANGLEY: And, Mr. Chairman, I suppose I should
9 move for the entry of Mr. McDaniel's direct testimony into the
10 record.

11 COMMISSIONER CARTER: As though read. Done.

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1 GULF POWER COMPANY
2 Before the Florida Public Service Commission
3 Prepared Direct Testimony of
4 Alan G. McDaniel
5 Docket No. 070299-EI
6 In Support of Gulf Power Company's Storm Hardening Plan
7 Date of Filing: August 24, 2007

8 Q. Please state your name, business address, and occupation.

9 A. My name is Alan McDaniel, and my business address is One Energy
10 Place, Pensacola, Florida 32520. I am the Project Services Manager of
11 Power Delivery for Gulf Power Company. I am responsible for joint use
12 and third-party attachments, skills development for engineering and
13 construction, and engineering and design of large distribution conversion
14 projects, along with the preparation and implementation of Gulf Power
15 Company's storm restoration plan.

16 Q. Please summarize your educational and professional background.

17 A. I graduated from the University of Florida with a Bachelor of Science
18 degree in Electrical Engineering in 1981 and from Colorado State
19 University with a Masters in Business Administration in 2006. Since
20 joining Gulf Power Company in 1980, I have held a number of positions
21 with increasing responsibility: co-operative education student, Associate
22 Engineer, Staff Engineer, Supervisor of Area Engineering, Distribution
23 Engineering Supervisor, Engineering and Construction Supervisor,
24 and Engineering and Construction Manager. My experience with Gulf
25 Power Company has included working in several areas of the Company
from Panama City to Pensacola in distribution operation, maintenance,

1 and construction, and substation and transmission maintenance.

2 I have represented Gulf on distribution technical and strategic
3 committees within Southern Company dealing with a variety of issues
4 including work methods and materials, distribution engineering and
5 construction, substation maintenance, and mutual assistance. I have
6 participated in and led many storm restoration teams after major storms.
7 My first hurricane restoration experience was as a team leader after
8 Hurricane Elena in 1985. My most recent experience was as the
9 restoration area manager after Hurricanes Ivan, Dennis and Katrina in
10 2004 and 2005. I have participated in restoration work in the field for 12
11 named storms ranging from tropical storms to category 3 hurricanes.

12

13 Q. What is the purpose of your testimony?

14 A. I will address Sections 11.0 and 12.0 of Gulf Power Company's Storm
15 Hardening Plan (the "Plan") for 2007 – 2009 as amended on August 14,
16 2007. Section 11.0, impact to collocation of facilities, deals with pole
17 strength and load assessments and the new process concerning
18 notification by third-party attachers when they perform overlashing of
19 cables and Section 12.0 covers third-party attachers' estimates of costs
20 and benefits. I will discuss how each section addresses and supports the
21 requirements set forth in Florida Public Service Commission (FPSC)
22 Rules 25-6.0341 and 25-6.0342. My testimony addresses the Plan in the
23 context of third-party attachment standards and procedures.

24

25

1 Q. Does Gulf maintain written third-party attachment standards and
2 procedures which address safety, reliability, pole loading capacity, and
3 engineering standards?

4 A. Yes. Gulf has maintained such written third-party attachment standards
5 and procedures for many years.

6

7 Q. Do Gulf's third-party attachment standards and procedures meet or
8 exceed the 2007 National Electrical Safety Code ("NESC")?

9 A. Yes.

10

11 Q. Does Gulf's Plan include proposed changes to third-party attachment
12 standards and procedures?

13 A. Yes. Gulf's Plan proposes two changes: (1) the requirement of a pole
14 strength and loading analysis prior to any new burden being placed on a
15 Gulf Power pole, and (2) the requirement of advance notice of overlashing
16 in order to better implement the pole strength and loading program. The
17 other parts of Gulf's attachment standards and procedures are neither
18 new nor specifically related to storm hardening.

19

20 Q. Please explain the term "overlashing."

21 A. Overlashing is when a new cable, fiber or other line is lashed or attached
22 to the existing messenger wire or cable.

23

24 Q. What is the purpose of the pole strength and loading analysis?

25 A. Gulf's Ten-Part Storm Preparedness Plan, as approved in FPSC Order

1 No. PSC-06-0781-PAA-EI, included a pole strength and loading analysis
2 program for a sampling of Gulf's poles. This approved pole strength and
3 loading analysis program was also included in Section 2.2 of Gulf's Plan.
4 The pole strength and loading analysis Gulf proposes for new
5 attachments and overlashing is an extension of the policy embedded in
6 the Ten-Part Storm Preparedness Plan. This analysis for new
7 attachments and overlashing will provide Gulf with data, on a going
8 forward basis, on whether and to what extent third-party attachments
9 impact the loading of any particular pole or pole line. If the pole strength
10 and loading analysis reveals that the pole or pole line is not strong enough
11 to support the proposed attachment (or overlashing, as the case may be)
12 at Grade B construction standard, Gulf will require "make ready" prior to
13 the new burden being added to the pole or pole line.
14

15 Q. What is the definition of "make ready" in this context?

16 A. Make ready refers to any work that has to be done on the pole or pole line
17 to accommodate the new attachment (or overlashing). This can include
18 rearrangement of existing facilities, additional guying, or replacing the
19 existing poles with taller or stronger poles, and adding additional poles to
20 the line.
21

22 Q. What is the purpose of the new requirement that third-party attachers
23 provide advance notice of overlashing?

24 A. In the past, Gulf has not specifically required third parties to provide
25 advance notice of overlashing. The new overlashing notification

1 requirement allows Gulf to perform a pole strength and loading analysis
2 prior to a new burden being placed on the pole or pole line. This
3 notification requirement is a common practice of other investor-owned
4 electric utilities in the state of Florida.

5

6 Q. Why did Gulf not require advance notice of overlashing from
7 third-party attachers before now?

8 A. Overlashing is a relatively new process in Gulf's service area. As the
9 average number of third-party attachments per pole has continued to
10 increase and the potential for greater load on each pole has become more
11 prevalent, Gulf is taking a proactive approach to managing its
12 infrastructure. It is reasonable to expect notification of any additional
13 burden being placed on our facilities by third-party attachers.

14

15 Q. How many of Gulf's poles are currently impacted by third-party attachers?

16 A. The majority of the poles impacted by third-party attachers are distribution
17 poles. As of December 31, 2006, Gulf had approximately 244,000
18 distribution poles in service. Based on 2006 data, approximately 151,000
19 of those poles had one or more third-party attachments. This means that
20 approximately 62% of Gulf's distribution poles are impacted by third-party
21 attachments. Many of these poles have multiple third-party
22 attachments.

23

24

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1 Q. How will the deployment of the pole strength and loading analysis
2 program work?

3 A. The pole strength and loading analysis program is targeted to answer one
4 question: can the pole or pole line handle the new burden under Grade B
5 construction specifications? When Gulf receives a new permit application
6 or an overlashing notification, a pole strength and loading analysis will be
7 performed for all poles impacted by the proposed attachment/overlashing.
8 If the proposed attachment/overlashing would cause failure by Grade B
9 construction standards, make ready options will be assessed. Gulf will
10 not allow an attachment/overlashing to be made until the impacted poles
11 are sufficiently strong enough to support the additional load at Grade B
12 construction.

13

14 Q. Did Gulf seek input from third-party attachers with respect to its Plan and
15 attempt in good faith to accommodate their concerns?

16 A. Yes. Gulf sought input prior to the May 2007 submission of the initial Plan
17 and has continued to have dialogue with third-party attachers since the
18 FPSC opened the current docket. The dialogue prior to the May 2007
19 submission resulted in more specificity with respect to Gulf's overlashing
20 notification process. The dialogue since the original submission led to the
21 removal of certain third-party attachment specifications from the Plan.
22 Gulf has and will continue to share information with the third-party
23 attachers regarding the potential cost impact of the Plan.

24

25

1 Q. In the Plan, does Gulf provide a detailed description of the extent to which
2 the electric infrastructure improvements involve joint-use facilities on
3 which third-party attachments exist?

4 A. Yes. Gulf Power has and will continue to work with all third-party
5 attachers to provide sufficient details of proposed electric infrastructure
6 improvements to determine potential impacts to joint-use facilities.

7 Detailed location maps of potentially-impacted joint-use facilities
8 have been and will continue to be provided to all interested third-party
9 attachers. The locations identified on the maps indicate where a third-
10 party attacher has one or more attachments on a pole.

11

12 Q. In the Plan, does the Company provide a reasonable estimate of the costs
13 and benefits to third-party attachers affected by the electric infrastructure
14 improvements, including the effect on reducing storm restoration costs
15 and customer outages realized by the third-party attachers?

16 A. Yes. In Section 12.0 of the Plan, Gulf identifies costs and benefits to
17 third-party attachers based on information supplied to Gulf by the third-
18 party attachers. Since filing the Plan, Gulf has furnished additional,
19 detailed location maps of the infrastructure improvement projects to allow
20 third-party attachers to better evaluate their cost and benefits.

21

22 Q. Do Gulf's proposed changes to the third-party attachment standards and
23 procedures meet the objectives of enhancing reliability and reducing
24 restoration costs and outage times in a prudent, practical, and cost-
25 effective manner to the affected parties?

1 A. Yes. Gulf's Plan, which includes the Ten-Part Storm Preparedness
2 Plan initiatives that were approved by the Commission in Order Nos. PSC-
3 06-0781-PAA-EI and PSC-06-0947-PAA-EI, can reasonably be expected
4 to enhance the reliability and reduce restoration cost and outage times in
5 a cost-effective manner. By performing the joint-use pole attachment
6 audits and pole strength and loading analysis where appropriate, Gulf's
7 Plan is prudent, practical, and cost-effective.

8

9 Q. Does this conclude your direct testimony?

10 A. Yes.

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1 COMMISSIONER CARTER: Mr. Wright, you're recognized.

2 MR. WRIGHT: Thank you, Mr. Chairman.

3 CROSS EXAMINATION

4 BY MR. WRIGHT:

5 Q Good afternoon, Mr. McDaniel.

6 A Good afternoon.

7 Q As I said, I have very few questions for you. Your
8 testimony indicates that you have direct field experience in
9 storm restoration with 12 named storms, is that accurate?

10 A Yes, sir.

11 Q How much of your field experience was with overhead
12 restoration activities and how much was with underground
13 restoration activities?

14 A I would say all of it.

15 Q Can you give us a percentage breakdown?

16 A Well, what I meant by the answer was I dealt with
17 both overhead and underground each and every time during those
18 storms. Obviously 80 percent or so of our system is overhead
19 and the rest is underground, and I would say that the
20 experience was proportional to the amount of each.

21 Q Thank you. Have you observed poles that you
22 believed, based on your own observation, failed because of
23 additional loading from telecommunications or cable television
24 facilities, i.e., the facilities of third-party attachers being
25 attached to Gulf's facilities?

1 A No, I have not.

2 Q Have you observed instances where electric
3 telecommunications and cable television facilities were tangled
4 up after a storm hit overhead facilities?

5 A Could you clarify that? When you say tangle up, did
6 you say with electric utilities?

7 Q I tried to say where all three, or electric and
8 telecommunication, electric and cable, or electric and
9 telecommunications and cable altogether were tangled up from
10 overhead facilities?

11 A I have seen where they were down. I wouldn't say
12 tangled up as much as they tend to stay attached to the pole
13 but go down.

14 Q So they fall down with the poles?

15 A Yes.

16 MR. WRIGHT: Thank you. That's all I have.

17 COMMISSIONER CARTER: Once again, before asking staff
18 or Commissioners, any other parties -- any other parties have
19 any questions for this witness?

20 Commissioners? Staff?

21 MS. BENNETT: No questions.

22 COMMISSIONER CARTER: Okay.

23 MR. LANGLEY: No redirect.

24 COMMISSIONER CARTER: No direct. Smart man. Okay.

25 Then you would be moving in Exhibit 19, is that correct?

1 Ms. Fleming, is that right?

2 MS. FLEMING: That's correct, it's Exhibit 19 only in
3 the Gulf Docket, 070299.

4 COMMISSIONER CARTER: Any objections? Hearing none,
5 show it done.

6 (Exhibit 19 admitted into the record.)

7 COMMISSIONER CARTER: Any other questions for this
8 witness? You may be excused.

9 MR. LANGLEY: Mr. Chairman, as a housekeeping matter,
10 I don't believe we asked that Mr. Battaglia be excused. May he
11 be excused?

12 COMMISSIONER CARTER: Commissioners, early on I took
13 a note here about -- oh, that would be Mr. McDaniel's withdrawn
14 as to rebuttal.

15 MS. FLEMING: Commissioner, I believe Mr. Battaglia
16 will be coming back up later for his rebuttal testimony. It
17 was only Mr. McDaniel that had the rebuttal testimony withdrawn
18 in the Gulf docket.

19 MR. LANGLEY: That's right. I meant excused from --
20 with respect to Mr. Battaglia, excused from his direct
21 testimony and cross-examination. He will be presenting
22 rebuttal. Mr. McDaniel will not.

23 COMMISSIONER CARTER: Okay, then.

24 MS. FLEMING: I think that is a given since Mr.
25 McDaniel is already on the stand.

1 MR. LANGLEY: Fair enough.

2 COMMISSIONER CARTER: All righty, then.

3 MR. BUTLER: Mr. Chairman, I believe that FPL's
4 Witness Manuel B. Miranda is the next witness, is that correct?

5 COMMISSIONER CARTER: That's what my list says, Mr.
6 Butler.

7 MR. BUTLER: Then I will call Mr. Miranda to the
8 stand.

9 MANUEL B. MIRANDA
10 was called as a witness on behalf of Florida Power and Light
11 Company, and having been duly sworn, testified as follows:

12 DIRECT EXAMINATION

13 BY MR. BUTLER:

14 Q Mr. Miranda, will you please state your name and
15 business address for the record?

16 A Sure. My name is Manuel B. Miranda. I go by the
17 nickname of Manny. My address is 9250 West Flagler Street,
18 Miami, Florida 33174.

19 Q Mr. Miranda, have you previously been sworn?

20 A Yes, I have.

21 Q Do you have before you a document consisting of 21
22 pages and three attached exhibits entitled Direct Testimony of
23 Manuel B. Miranda in Docket Number 070301-EI, dated August 24,
24 2007?

25 A Yes, I do.

1 Q Was this document prepared under your direction,
2 supervision, and control?

3 A Yes, it was.

4 Q Do you have any changes or corrections to your
5 prefiled testimony or exhibits?

6 A Yes, I do.

7 Q Would you please state those.

8 A On my direct testimony, Page 17, Line 13, the number
9 nine should be seven. And on Exhibit MBM-3, the first bullet
10 that says ten utilities should be seven utilities for a total
11 of ten data points.

12 Q Thank you, Mr. Miranda.

13 MR. BUTLER: Staff, I would like to inquire at this
14 point. You had prepared, based on information I had provided
15 you, a list of revisions -- I'm sorry, it only applies to
16 rebuttal testimony. Nevermind. Nothing here that we need to
17 do with Mr. Miranda's direct testimony.

18 BY MR. BUTLER:

19 Q Mr. Miranda, with the changes that you just made, do
20 you adopt this prefiled testimony as your direct testimony in
21 this proceeding?

22 A Yes, I do.

23 MR. BUTLER: I would ask that Mr. Miranda's prefiled
24 testimony be inserted into the record as though read.

25 COMMISSIONER CARTER: The prefiled testimony will be

1 accepted into the record as though read.

2 MR. BUTLER: And I note that Mr. Miranda's Exhibits
3 MBM-1, 2, and 3 are prenumbered 20, 21, and 22 respectively.

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1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2 **FLORIDA POWER & LIGHT COMPANY**

3 **DIRECT TESTIMONY OF MANUEL B. MIRANDA**

4 **DOCKET NO. 070301-EI**

5 **AUGUST 24, 2007**

6

7 **Q. Please state your name and business address.**

8 A. My name is Manuel (Manny) B. Miranda. My business address is Florida
9 Power & Light Company, 9250 W. Flagler Street, Miami, Florida, 33174.

10 **Q. By whom are you employed and what is your position?**

11 A. I am employed by Florida Power & Light Company (FPL or the Company) as
12 Vice President, Distribution Central Maintenance.

13 **Q. Please describe your duties and responsibilities.**

14 A. I am responsible for the coordination and execution of all contracted
15 functions, which include contractor performance and ancillary services,
16 including the equipment repair center, vegetation, cable rehabilitation,
17 environmental, pole inspections and street lights.

18 **Q. Please describe your educational background and professional
19 experience.**

20 A. I have a Bachelor of Science degree in Mechanical Engineering from the
21 University of Miami and a Master of Business Administration from Nova
22 Southeastern University. I joined FPL in 1982 and have served in a variety of
23 positions in marketing and distribution operations. I have been a distribution

1 area manager, director of distribution operations support, and director of
2 distribution operations. Finally, until just recently, I was Vice President,
3 Distribution System Performance, responsible for executing FPL's Storm
4 Secure Plan, including developing FPL's hardening plan, new construction
5 standards, product engineering, research and development, and overseeing the
6 direct engineering and construction of infrastructure improvements made as a
7 result of our hardening plan.

8 **Q. Are you sponsoring any exhibits in this case?**

9 A. Yes. I am sponsoring the following three exhibits:

- 10 • MBM-1, FPL's Electric Infrastructure Storm Hardening Plan
11 (Plan);
- 12 • MBM-2, Critical Infrastructure Projects to be Completed in 2008
13 and 2009; and
- 14 • MBM-3, Davies Consulting, Inc. Storm Pole Replacement
15 Analysis.

16 **Q. What is the purpose of your testimony?**

17 A. The purpose of my testimony is to present FPL's Plan which was filed with
18 the FPSC on May 7, 2007. I will provide an overview of the Plan (including
19 its relationship to FPL's other storm initiatives), FPL's "three prong
20 approach" hardening strategy, costs for 2007-2009 and expected benefits
21 resulting from hardening. I will also explain that FPL's Plan is a cost-effective
22 approach that will result in less storm damage, less storm restoration time and
23 costs and, therefore, is in the best interest of its customers. Finally, I will

1 explain that the Plan reflects FPL's detailed deployment strategy for 2007,
2 that more limited detail is available at this time for 2008 or 2009, and that FPL
3 intends to provide updated data to the Florida Public Service Commission
4 (FPSC) Staff and interested persons concerning the 2008 and 2009
5 deployment strategy as that information becomes available. My testimony
6 concludes that, for these reasons, FPL's Plan complies with Rule 25-6.0342
7 and should be approved by the Commission.

8

9 **BACKGROUND AND HISTORY OF HARDENING EFFORTS**

10 **Q. What events prompted FPL to initiate its hardening activities?**

11 A. The 2004 and 2005 hurricane seasons were the most extraordinary and
12 challenging on record for FPL and its customers. There were five direct
13 landfalls and two indirect impacts in FPL's service territory, resulting in
14 significant customer outages and requiring extraordinary efforts to rebuild and
15 restore the electric infrastructure. This experience, coupled with forecasters'
16 predictions of decades of heightened tropical cyclonic activities, compelled
17 FPL to re-examine and evaluate the facts about our electrical system
18 infrastructure. FPL concluded that a change in design, construction and
19 operation of that infrastructure is required. As a result, in January 2006, FPL
20 filed its Storm Secure Plan with the Florida Public Service Commission
21 (FPSC).

- 1 **Q. What were the key areas of focus contained in FPL's Storm Secure Plan?**
- 2 A. This comprehensive plan for increased storm preparedness included the
3 following four areas: hardening FPL's electric network; investing in
4 underground conversions; modifying FPL's pole inspection program; and
5 enhancing FPL's vegetation management activities.
- 6 **Q. Was the FPSC also undertaking its own initiatives regarding storm
7 preparedness and electric infrastructure hardening?**
- 8 A. Yes. Beginning in 2006, the FPSC began to develop its own requirements for
9 electric utilities to improve their storm preparedness and to harden their
10 electric infrastructure. This included: requiring electric utilities to implement
11 8-year and 6-year pole inspection programs for distribution poles and
12 transmission structures, respectively; requiring electric utilities to address 10
13 storm preparedness initiatives (which include more frequent tree trimming);
14 adopting new CIAC rules for underground construction; and adopting Rule
15 25-6.0342, which directed FPL and other investor owned utilities to file
16 detailed electric infrastructure hardening plans by May 7, 2007.
- 17 **Q. Did FPL participate in developing these initiatives and is FPL complying
18 with their requirements?**
- 19 A. Yes. FPL participated in the various Staff workshops, meetings and
20 proceedings and has also complied with all of their requirements. This
21 includes implementing the approved pole inspection programs and 10 storm
22 preparedness initiatives as well as filing its Plan. In addition, to promote

1 overhead to underground conversions, FPL filed (and ultimately received
2 approval for) its Governmental Adjustment Factor (GAF).

3 **Q. Can you provide the estimated 2007 costs associated with these**
4 **initiatives?**

5 A. Yes. For 2007, FPL estimates that the cost for implementing its 8 year
6 distribution pole inspection program is approximately \$40 million. For the 10
7 storm preparedness initiatives, which includes increased tree trimming and
8 transmission pole inspections, costs for 2007 are estimated to be
9 approximately \$90 million. The 2007 costs for FPL's Plan are estimated to be
10 approximately \$48.5 million to \$61.5 million. I will provide more information
11 on these costs later.

12 **Q. What was the focus of the FPSC's requirement for electric utilities to file**
13 **hardening plans?**

14 A. This last major initiative is intended to strengthen the overhead electric
15 infrastructure to better withstand the strong winds, or damage caused by
16 "wind only" created by hurricanes. The pole inspection programs already in
17 place should provide for improved storm pole performance, as it will replace
18 or reinforce poles that are overloaded and/or lack sufficient strength.
19 Likewise, the FPSC's direction to increase vegetation management activities,
20 including the trimming of vegetation along all feeders serving critical
21 infrastructure facilities prior to storm season, already addresses vegetation
22 related outages and this should improve storm as well as day to day reliability.

1 Finally, FPL's GAF Tariff, which was facilitated by the FPSC's new CIAC
2 rules, already provides encouragement for more underground construction.

3

4 **FPL'S STRATEGY TO STRENGTHEN / MITIGATE / RESTORE**

5 **Q. Please provide an overview of FPL's long term overall strategy to**
6 **strengthen its system, mitigate damage and customer outages and restore**
7 **customers in the least amount of time.**

8 A. Without fundamental and significant changes in the way we construct and
9 harden our infrastructure to prevent outages, FPL believes the level of
10 disruptions to its infrastructure from future storms would be much like that
11 experienced in the 2004 and 2005 hurricane seasons. Therefore, as I
12 previously discussed, FPL announced and began to implement its Storm
13 Secure initiative. The other Storm Secure initiatives, including pole
14 inspections, increased vegetation management activities, and the investment in
15 underground have all been approved and implemented. It is time now to
16 address the most important remaining element of storm preparedness:
17 hardening the infrastructure itself.

18

19 In May 2007, FPL filed its Plan, a very targeted and cost-effective approach to
20 harden its system against the effects of strong winds.

21 It is important to keep in mind that this initial Plan filing is only a first step,
22 based on current systems, processes, technologies and equipment. FPL fully

1 expects that opportunities will present themselves for improvement and
2 refinements to this Plan as additional experience is gained, new systems and
3 processes are employed, improved storm forensics provide more and better
4 data to be collected and analyzed, and new technologies become available.
5 FPL's system is diverse, complex and geographically large. Hardening this
6 system is a monumental task and will take many years to complete. FPL is
7 committed to the goal of cost-effective system hardening and will continue to
8 look for opportunities to improve and refine them in a cost-effective manner.

9 **Q. Do you see similarities between the current efforts taking place today**
10 **within the electric industry in Florida and what happened in the building**
11 **industry following Hurricane Andrew?**

12 A. Yes. I can recall the protests from the building industry when new and stricter
13 building codes were being introduced and discussed in an attempt to limit the
14 damage and destruction to buildings and homes seen as a result of Hurricane
15 Andrew. These changes, which included requiring stronger roofs, doors, and
16 windows, were all being challenged as a result of potentially significant
17 increases in housing and building construction costs, unproven building
18 techniques, and the lack of data to justify the cost-effectiveness of the new
19 codes. Yet today, 15 years later, we realize that the building industry did not
20 collapse, that technology advances have provided less expensive and better
21 materials that are lighter and stronger (e.g., light-weight shutters that are clear
22 and window glass that can withstand hurricane force winds), that homes built
23 to current standards are withstanding hurricanes better than homes built before

1 the current building code; and that homes today are more valued by
2 homeowners if they include more of the current advanced hurricane protection
3 applications, techniques, and technologies.

4 The electric industry in Florida is facing similar challenges and questions
5 regarding the hardening of its infrastructure. Issues and concerns are being
6 raised about cost impacts and lack of currently available data to support
7 cost/benefit analyses. However, while these challenges and questions should
8 be appropriately addressed, FPL believes it should not wait for all of the
9 questions to be answered. While FPL's Plan could be subsequently modified
10 as better forensic data becomes available, construction techniques are
11 improved and new technologies provide less costly and improved hardening
12 products, FPL believes that, on behalf of its customers, we must begin to take
13 action now.

14 **OVERVIEW OF FPL'S PLAN**

15 **Q. What is the underlying philosophy behind FPL's Plan?**

16 A. Two key conclusions drawn by FPL from its own 2004 and 2005 storms
17 experience and forensic data form the basis for FPL's Plan.: (1) For Hurricane
18 Wilma, wind was the predominant root cause of distribution pole breakage;
19 and (2) FPL's transmission structures, which are already built to the NESC's
20 EWL, performed well overall in the face of Hurricane Wilma's winds.

21 **Q. Please provide some additional details on these two conclusions.**

1 A. The Technical Report: Post Hurricane Wilma Engineering Analysis (Report)
2 conducted by and issued by KEMA, Inc. in January 2006 was filed and
3 extensively reviewed in FPSC Docket No. 060038-EI. It shows that, based on
4 its Hurricane Wilma forensic analysis, "Wind Only" was the highest
5 contributing factor for FPL distribution wood poles failures (52%) and that
6 this cause of failure was two and one half times greater than any other cause
7 of failure identified, e.g., trees, presence of deterioration, and possible design
8 overload.

9
10 For transmission structures, the Report also showed that Hurricane Wilma
11 caused 100 transmission structures to fail, which is only about 0.1% of the
12 total transmission structures (over 68,000) in FPL's system. This failure rate is
13 significantly lower than the failure rate for distribution poles during Hurricane
14 Wilma (approximately 1%).

15
16 FPL concluded that, without fundamental and significant changes in the way
17 distribution facilities are constructed and hardened to prevent outages, the
18 level of disruptions to its infrastructure and customers from future storms
19 could be much like that experienced in the 2004 and 2005 storms.

20 **Q. What is the basic approach to infrastructure hardening under FPL's**
21 **Plan?**

22 A. To harden its distribution infrastructure, FPL proposes a three prong
23 approach:

- 1 • applies extreme wind-loading criteria (EWL) proactively to
2 infrastructure that serves critical customers (e.g., hospitals and 911
3 centers);
- 4 • targets strengthening existing infrastructure, up to and including EWL,
5 that serves community needs (e.g., gas stations and grocery stores)
6 with optimal modifications using various cost-effective engineering
7 tools; and
- 8 • employs revised Design Guidelines to apply EWL to new OH
9 construction, major planned work, relocation projects and daily work
10 activities to move FPL's system toward overall EWL hardening
11 gradually over time.

12 This three prong approach specifically targets certain distribution facilities
13 and utilizes various engineering tools and options to cost-effectively harden
14 the system.

15 **Q. Please explain the first prong of FPL's hardening approach, EWL for**
16 **critical facilities.**

17 A. To apply the NESC extreme wind map for Florida, FPL proposes to divide its
18 implementation of EWL into three wind regions, corresponding to extreme
19 winds of 105, 130 and 145 mph, except for the sparsely populated extreme
20 southern tip of FPL's service territory which will be designed for 150 mph.
21 This three zone approach is an efficient approach taking into consideration
22 work methods efficiencies, training, engineering, other administrative aspects,
23 and meeting EWL in the counties within each region.

1 EWL will be applied proactively to CIF feeders and any associated laterals
2 serving critical customers. These facilities are critical and essential to the
3 health, safety, welfare and security of the public. Examples of customers
4 served by these facilities include hospitals, 911 centers, special needs shelters,
5 water treatment plants, and fire stations. Initially, FPL is targeting acute care
6 facilities, i.e., major hospitals.

7
8 Additionally, EWL will be applied to poles included in FPL's Targeted
9 Critical Pole (TCP) Program. If these poles fail, restoration efforts can be
10 significantly impacted. These would include poles associated with overhead
11 limited access highway crossings (necessary to keep roads open and safe) and
12 poles with "01 switches" (the first pole outside of a substation that is critical
13 to FPL's restoration process).

14 **Q. Please explain the second prong of FPL's hardening approach,**
15 **Incremental Hardening.**

16 A. The objective of Incremental Hardening is to optimize the existing distribution
17 infrastructure and increase the overall wind profile of a feeder to higher wind
18 rating (up to and including EWL) by utilizing cost-effective engineering
19 options to eliminate poles with the lowest wind ratings in the feeder. For
20 instance, a feeder's overall wind rating can be increased by utilizing cost-
21 effective options in FPL's "design toolkit" (e.g., storm guying, relocating
22 equipment, installing an intermediate pole, upgrading the pole class,
23 undergrounding facilities) to target improvements in individual poles with the

1 lowest wind ratings. Initially, Incremental Hardening, will target “community
2 projects”, which are feeders that have been identified as serving community
3 needs such as grocery stores, gas stations, and pharmacies. Typically, these
4 types of businesses are located along major thoroughfares and provide easy
5 access to the community.

6 **Q. Please explain the third prong to FPL’s hardening approach, revised
7 Design Guidelines.**

8 A. FPL’s Design Guidelines will apply EWL for new construction, major
9 planned work, relocation projects and daily work activities. These guidelines
10 primarily are associated with changes in pole class, pole type, and desired
11 span lengths to be utilized. Standardizing these processes will ensure this type
12 of construction work aligns with FPL’s overall hardening strategy. Depending
13 on the scope of work performed in a particular project this will result in EWL
14 for an entire circuit or EWL hardening on one or a small number of poles.
15 The purpose of this prong of FPL’s Plan is to help ensure that FPL continues
16 to move toward our ultimate goal of a fully hardened distribution system and
17 avoid the replacement of these facilities at a considerable expense later.

18

19 **DEPLOYMENT PLANS FOR 2007 - 2009**

20 **Q. What are FPL’s deployment plans for 2007?**

21 A. For 2007, FPL plans to utilize EWL to harden 34 feeders and associated
22 laterals, serving 28 CIF customers and 4 system-critical facilities. The TCP
23 Program will also focus on EWL hardening for 43 OH highway crossings on

1 Interstate 75 and the Florida Turnpike in Miami-Dade and Broward Counties
2 and 78 "01 Switch" poles. Details of where these projects are located are
3 included on Page 41 of FPL's Plan. Additionally, FPL will complete
4 Incremental Hardening on feeders serving 34 community projects. These
5 projects are located primarily in Miami-Dade, Broward, and Palm Beach
6 Counties where FPL has its highest density of customers. Details of where
7 these projects are located are included on Page 42 of FPL's Plan. FPL has
8 previously provided two CDs of detailed engineering construction drawings
9 for these projects to Staff and all parties.

10

11 FPL's 2007 deployment plan will result in hardening approximately 145 OH
12 circuit miles, encompassing 5,800 poles. However, over 50% of those 5,800
13 poles already meet EWL and do not require any additional hardening. FPL
14 will be replacing approximately 2,100 poles and installing approximately 700
15 new intermediate poles.

16 **Q. What are FPL's deployment plans for 2008 and 2009?**

17 A. Since FPL's plans for 2008 and 2009 are undergoing review as a result FPL's
18 normal budgeting approval process, precise detail plans for 2008 and 2009 are
19 not available. However, consistent with its overall approach FPL will continue
20 to address CIF hardening, critical poles, and community projects and utilize
21 its Design Guidelines. For 2008, FPL estimates that it will EWL harden
22 approximately 45-60 feeders and incrementally harden 15-30 feeders. For
23 2009, FPL estimates have not been finalized. While the exact number and

1 which feeders will be hardened in 2008 and 2009 have not been determined
2 yet, FPL intends to complete EWL hardening for all hospitals and 911 centers
3 by the end of 2009. These projects are identified on MBM-2 and FPL has
4 provided a copy of all available route and engineering data for these 2008-
5 2009 projects to Staff and all parties.

6 **Q. Does FPL plan to provide additional updated details for its 2008 and 2009**
7 **deployment plans?**

8 A. Yes. FPL plans to file annual updates to its Plan. For example, before the end
9 of 2007, FPL will provide detailed plans with engineering construction
10 drawings or line diagrams of the specific circuits being hardened in 2008
11 along with their associated costs.

12

13 **HARDENING COSTS 2007 - 2009**

14 **Q. What are the current cost estimates for 2007 hardening efforts?**

15 A. FPL's most recent cost estimates for 2007 hardening efforts is a range of
16 \$48.5 – \$61.5 million. CIF and major thoroughfares are expected to cost \$29 -
17 \$37 million, major planned expansion, rebuild, or relocations are expected to
18 cost \$14 - \$16.5 million and new distribution facilities, major planned
19 expansion, re-build and relocations are expected to cost \$5.5 - \$8 million.

20 **Q. Why is FPL still providing ranges of cost estimates for 2007?**

21 A. To date, FPL has completed construction on over 50% of its 2007 CIF,
22 Incremental Hardening and highway crossings projects. Most of the remaining

1 projects are still in construction and one final project's design remains to be
2 finalized before preparing for bid.

3 **Q. What are the cost estimates for 2008 and 2009?**

4 A. Cost estimates for 2008 range from \$75 - \$125 million. For 2009, current cost
5 estimates range from \$100 - \$150 million.

6 **Q. Does FPL plan to provide additional updates to 2008 and 2009 costs?**

7 A. Yes. When FPL files its annual updates to the Plan, we will include updates to
8 the associated cost estimates.

9

10 **BENEFITS ASSOCIATED WITH FPL'S STORM HARDENING**
11 **EFFORTS**

12 **Q. Does FPL expect that implementing the Plan will result in benefits for**
13 **FPL and its customers?**

14 A. Most definitely. FPL is confident that its hardening investment today will
15 result in permanent improvements to the storm resilience of its distribution
16 system and that, in turn, this will benefit FPL and its customers far into the
17 future. These benefits will take many forms, but FPL anticipates that the two
18 major types of benefits will be a reduction in storm and non-storm restoration
19 costs ("Restoration Cost Savings"), and a reduction in customer outages.

20 **Q. Has FPL estimated the Restoration Cost Savings that will result from**
21 **implementing the Plan?**

22 A. Yes. FPL conducted an analysis to determine the relationship between the
23 expected Restoration Cost Savings from the planned hardening activities and

1 the estimated cost of those activities. This analysis utilizes the estimated
2 average Restoration Cost Savings per mile of feeder for all planned hardening
3 activities, rather than for each activity separately because FPL does not have
4 sufficient information at this time to distinguish between the benefits
5 attributable to one type of hardening activity versus another. The Restoration
6 Cost Savings have to be expressed as a range at this time, because of the
7 uncertainties inherent in estimating them based on current information.

8 **Q. What are the uncertainties that you are referring to?**

9 A. While there are numerous areas of uncertainty, two are particularly important.
10 First, while FPL's experience shows that systems designed to withstand
11 stronger winds have greater overall resiliency to storms, there is little directly
12 measured data on the improved resilience, and hence reduced Restoration
13 Cost Savings, resulting from hardening such facilities. Second, no one can
14 know for sure how frequently FPL's service territory will be impacted by
15 strong hurricanes.

16 **Q. What sources of data has FPL utilized to estimate the improved resilience
17 of hardened distribution facilities?**

18 A. FPL has relied primarily upon the following four sources of data.

19

20 First, FPL has its experience from the 2004-2005 hurricane seasons, which
21 provided substantial insight into the specific causes of pole failures (and hence
22 both the nature and magnitude of potential improvements in storm resilience
23 that could result from addressing those causes).

1 Second, part of the work that KEMA performed for FPL following the 2005
2 storm season addressed KEMA's evaluation of the potential storm-resilience
3 improvements that could be expected from hardening activities.

4
5 Third, FPL has been able to compare the performance during the strong winds
6 of hurricane Wilma between transmission poles (which were designed to
7 EWL standards and fared well) and its distribution poles (which generally
8 were not designed to EWL standards and experienced a significant number of
9 "wind only" failures).

10
11 Finally, an independent analysis prepared by Davies Consulting, Inc. in
12 February 2006 addressed the impact of hurricanes with varying strength on
13 pole replacements for FPL and nine other utilities. The results of this analysis,
14 which are depicted in graph form in Exhibit MBM-3, show that there is a
15 strong correlation between the percentage of poles requiring replacement and
16 the strength of the storms. It also showed that FPL's pole replacement rates
17 were lower than those of other utilities for storms of comparable strengths.
18 FPL believes that a key factor in FPL's superior pole performance was FPL's
19 Grade B construction standard, whereas all of the other utilities in this
20 analysis built their distribution systems to meet Grade C construction. This
21 substantiates that systems designed to withstand stronger winds (i.e., Grade C
22 vs. Grade B vs. EWL) indeed have greater overall resiliency in storms.

1 **Q. Does the assumed frequency of storms affect the estimate of cumulative**
2 **Restoration Cost Savings over time?**

3 A. Yes. As I mentioned earlier, no one is in a position to know for sure the
4 frequency or the intensity of strong hurricanes that may impact FPL's service
5 territory. However, the experience of the 2004-2005 hurricane seasons as well
6 as some recent meteorological analyses, suggest that we may be in a period of
7 increased hurricane activity, such that a frequency of at least once every three
8 years may be more representative. The estimate of cumulative Restoration
9 Cost Savings over time will be directly affected by how frequently storms hit
10 FPL's service territory.

11 **Q. Taking these uncertainties into account, what range of Restoration Cost**
12 **Savings does FPL estimate?**

13 A. FPL estimates that, over an analytical study period of 30 years, the net present
14 value of Restoration Cost Savings per mile of hardened feeder would be
15 approximately 45% - 70% of the cost to harden that feeder at a storm
16 frequency of once every 3-5 years. Of course, there are factors that could
17 cause the Restoration Costs Savings to exceed the hardening costs. These
18 would include a higher frequency of storms, storms of greater intensity similar
19 to Hurricane Wilma, improvement in construction processes and/or realized
20 technological improvements. For instance, if a storm of Hurricane Wilma's
21 intensity occurred once every three years, the associated net present value of
22 Restoration Cost Savings would then become approximately equal to the
23 hardening costs.

1 **Q. The second major type of benefit you identified was a reduction in**
2 **customer outages resulting from its hardening activities. Please explain**
3 **the impact on customer outages that you expect FPL's hardening**
4 **activities to have.**

5 A. The improved performance of FPL's feeders will result in less feeder damage,
6 fewer feeder outages and fewer customer outages. FPL believes that, in
7 conjunction with fully implementing its pole inspection program and
8 increased vegetation management activities, once its system is hardened,
9 fewer customer outages will occur and overall distribution restoration time
10 will be significantly reduced.

11

12 **COST-EFFECTIVENESS OF FPL'S PLAN**

13 **Q. Do you believe FPL's Plan meets the desired objectives of enhancing**
14 **reliability and reducing restoration costs and outage times in a prudent,**
15 **practical and cost-effective manner?**

16 A. Yes. As described earlier, FPL's Plan enhances reliability, both storm and
17 non-storm, reduces the number of customer outages and reduces the overall
18 restoration time. Additionally, FPL's plan is cost-effective.

19 **Q. Please explain why you believe FPL's plan is cost-effective?**

20 A. A commonly accepted definition of cost-effective is an activity that produces
21 optimum results for a given level of expenditure. As I discussed earlier, there
22 are uncertainties that limit FPL's ability to quantify precisely the results and
23 benefits associated with its hardening activities, but experience from the 2004

1 and 2005 storm seasons dictate that action should be taken. Therefore, what
2 becomes important from an economic perspective is to ensure that the desired
3 outcome is achieved as efficiently as possible. FPL's Plan is very targeted,
4 efficient and produces optimum results. It focuses initially on critical
5 infrastructure facilities and community projects, where the most customers
6 will receive the most benefits as quickly as possible. For the facilities that
7 will be hardened to EWL standards, each pole location is evaluated to
8 determine how it can be strengthened to meet those standards at the least cost
9 and with the least disruption. And for community projects, the approach is
10 even more targeted, specifically focusing on "weak link" poles, where
11 hardening a few poles can significantly increase the strength of an entire pole
12 line. FPL's targeted approach will also allow for modifications and
13 refinements to be employed as more experience is gained, more and better
14 forensics data and analysis becomes available, and new systems and
15 technologies enter the market.

16

17 **COMPLIANCE WITH RULE 25-6.0342**

18 **Q. Is FPL's plan in compliance with Rule 25-6.0342?**

19 A. Yes. As required by Rule 25-6.0342, FPL's Plan contains a detailed
20 description of the FPL's construction standards, policies, practices and
21 practices that we will employ to enhance the reliability of overhead and
22 underground electrical transmission and distribution. FPL's Plan: (1)
23 demonstrates that FPL's transmission and distribution facilities comply with

1 or exceed the National Electrical Safety Code; (2) adopts EWL standards for
2 critical infrastructure facilities, new overhead construction, major planned
3 work, relocation projects and daily work activities; (3) is designed to mitigate
4 damage to underground and supporting overhead facilities due to flooding and
5 storm surges; (4) provides for the placement of new and replacement
6 distribution facilities pursuant to Rule 25-6.0341; (5) contains deployment
7 plans for 2007 – 2009 along with costs and benefits; (6) contains Attachment
8 Standards and Procedures; and (7) includes input from joint pole owners and
9 other attaching entities.

10 **Q. Does this conclude your direct testimony?**

11 **A. Yes.**

1 BY MR. BUTLER:

2 Q Mr. Miranda, would you please summary your testimony.

3 A Yes; thank you.

4 Good afternoon, Commissioners. Seven storms impacted
5 FPL and its customers during the 2004 and 2005 hurricane
6 seasons resulting in significant customer outages that required
7 extraordinary efforts to rebuild and restore FPL's system.
8 This, along with forecasts of increased hurricane activity, led
9 FPL to conclude that without significant changes similar
10 disruptions from future storms would occur. While several
11 hardening initiatives have already been implemented, for
12 example, the pole inspection program and the ten storm
13 preparedness initiatives, which includes vegetation management,
14 there remains one major initiative, strengthening the overhead
15 system to better withstand strong hurricane winds.

16 Two key conclusions from our recent storm experience
17 formed the basis for FPL's plan. One, for Hurricane Wilma,
18 wind was the predominant root cause of distribution pole
19 breakage; and, two, FPL's transmission structures which are
20 already built to the NESC extreme wind loading criteria
21 performed well over all. Based on this experience, FPL
22 proposes a three-prong approach to harden the overhead
23 distribution system so that it can better withstand strong
24 winds.

25 First, apply extreme wind loading criteria to

1 facilities that serve critical infrastructure of customers.
2 For example, our hospitals and 911 centers. Two, apply
3 incremental hardening to existing infrastructure that serves
4 critical community needs, such as gas stations and grocery
5 stores. Three, employ revised design guidelines to apply
6 extreme wind to overhead construction, major plan work,
7 relocation projects, and daily work activities. For 2007, FPL
8 plans to utilize extreme wind to harden 34 critical
9 infrastructure feeders and associated laterals to serve 28
10 acute care facilities, 43 highway crossings, and the first pole
11 out of a substation for 78 feeders. Additionally, FPL will
12 complete incremental hardening on feeders serving 34 community
13 projects. In total, this will result in hardening
14 approximately 145 overhead circuit miles, including replacing
15 2,100 existing poles and installing 700 intermediate poles.

16 FPL's overall three-pronged approach will continue in
17 2008 and 2009. Detailed plans have not been finalized, but it
18 is FPL's intent to complete extreme wind hardening for all
19 hospitals and 911 centers by the end of 2009. FPL will
20 annually provide detailed updates to its plan for these out
21 years.

22 Cost range estimates for FPL's hardening efforts are
23 48.5 to \$61.5 million in 2007, 75 to 125 million in 2008, and
24 100 to 150 million in 2009. Our analysis indicates that the
25 restoration cost savings per mile of hardened feeder are

1 estimated to range from 45 percent to 70 percent of the costs
2 to harden the feeder assuming a storm frequency of every three
3 to five years respectively. More frequent storms could cause
4 the restoration cost savings to exceed the hardening costs.

5 For instance, if a storm of Hurricane Wilma's intensity
6 occurred once every three years, the restoration cost savings
7 would then become about equal to the hardening costs.

8 Once the system is hardened, FPL's plan, along with
9 the other initiatives recently implemented, will result in
10 fewer customer outages and a reduction in overall distribution
11 restoration time. This is a significant benefit for our
12 customers beyond the anticipated savings of restoration costs.
13 While there are uncertainties that limit FPL's ability to
14 quantify precisely the results and benefits associated with the
15 hardening activities, our recent storm experience dictates that
16 the action should be taken. Our plan is prudent, practical,
17 and cost-effective. It focuses initially on critical
18 infrastructure facilities and community projects, facilities
19 that provide critical and essential needs to our communities
20 and our customers.

21 Since FPL's system is diverse and geographically
22 large, hardening will take many years to complete. The initial
23 plan is a first step based on our current systems, our
24 processes, our technologies, and our equipment. The
25 comprehensive plan to harden our system which includes the full

1 implementation of the pole inspection program and the ten storm
2 preparedness initiatives will result in a more resilient system
3 which means fewer customer outages and a reduction in overall
4 distribution time.

5 The Commission should approve FPL's plan in this
6 proceeding so that we can begin to provide our customers the
7 added protection against future hurricanes that they have told
8 us and the Commission which is so important to them.

9 Thank you.

10 MR. BUTLER: Thank you, Mr. Miranda. I tender Mr.
11 Miranda for cross-examination.

12 COMMISSIONER CARTER: Let's see who all has questions
13 of this witness.

14 MR. SEIVER: FCTA has some questions, Your Honor.

15 COMMISSIONER CARTER: Why don't we let you go first.
16 You're recognized.

17 MR. SEIVER: Thank you, Mr. Chairman.

18 John Seiver for the Florida Cable Telecommunications
19 Association.

20 CROSS EXAMINATION

21 BY MR. SEIVER:

22 Q Good afternoon, Mr. Miranda.

23 A Good afternoon, Mr. Seiver.

24 Q I believe in your testimony you had commented that
25 the cost-effectiveness of FPL's storm hardening plan depends on

1 the timing and severity of future storms, is that right?

2 A We provide an estimate which shows storms
3 effectiveness every three years and every five years.

4 Q And the strength and severity of those storms is
5 important to consider the cost-effectiveness?

6 A For the purposes of our benefit we utilize an average
7 storm that we experienced in the 2004 and 2005 hurricane
8 season, so that was the basis by which we conducted our
9 analysis.

10 Q And this analysis as far as the cost/benefit and
11 recovering the costs, which I believe you testified to, is over
12 a period of 30 years, is that right?

13 A Yes. The analysis is about the effects of the net
14 present value over a 30-year period.

15 Q So in order to have -- you need more than one storm
16 every three years, you would need ten storms in 30 years in
17 order for the analysis to run out to the end, is that right?

18 A And that would assume that we would be building
19 everything overnight, which as you know will be a gradual
20 implementation over this period, as well.

21 Q But it wouldn't take you 30 years to build-out the
22 storm hardening plan?

23 A No, that's correct.

24 Q As far as the severity and strength of the storms,
25 that's not based on any meteorological analysis that you

1 yourself performed, is that right?

2 A None that I have personally performed, it is just
3 based on what meteorologists and experts are saying about the
4 heightened hurricane activity period that we are.

5 Q Is there anything that the meteorologists have said
6 about the hurricane activity in this record, or an exhibit, or
7 anywhere in anybody's testimony?

8 A No.

9 Q And you also had mentioned, I think, that we are
10 maybe in a period of increased hurricane activity, is that
11 right?

12 A That is correct.

13 Q Is that based again similarly on predictions of some
14 experts?

15 A Statements that you hear from the National Hurricane
16 Center, it is statements based on our activities that we saw in
17 the '04 and '05 season, and even historically I would say on
18 average we have experienced a storm about once every five
19 years, so it should be consistent with those.

20 Q If there is a storm once every five years the
21 restoration cost savings drop, don't they?

22 A Correct.

23 Q And, in fact, I think you testified that if it's
24 every five years would it be about 45 percent restoration cost
25 savings per mile?

1 A Right. And those costs are associated with FPL's
2 direct costs. Of course, we did not measure the value that
3 there might be to the communities, to our customers, and, you
4 know, the economic impact by having services restored quicker
5 would have.

6 Q And putting aside Hurricane Wilma for the moment, if
7 there is a storm at a frequency of once every three years, but
8 not of Wilma's strength, it would only be 70 percent
9 cost-recovery, putting aside the other benefits, is that right?

10 A That's correct.

11 Q And as far as Hurricane Wilma is concerned, that was
12 a fairly unique storm in your service territory, wasn't it?

13 A It was the most recent storm that we have had, but it
14 was a Category 3 that impacted our territory.

15 Q But it was unique from all the other Category 3s that
16 have impacted your territory, isn't it?

17 A I wouldn't say it is unique. I think it is, you
18 know, where it impacted our service territory and how it came
19 in through, but all hurricanes, you know, they are powerful
20 forces of nature, so you never quite know what they are going
21 to bring.

22 Q Well, didn't you testify that Hurricane Wilma was
23 unique in that there were many more wind-only pole failures
24 than with any other storm?

25 A What we said was that we had conducted the forensic

1 analysis during Wilma, and we had conducted forensics in the
2 2005 hurricane season, and Wilma, which was the one that was a
3 Category 3, wind only was the predominant root cause.

4 Q And would it be fair to say that your storm hardening
5 plan that you have proposed here to build your facilities to
6 the extreme wind standards is really based on your experience
7 with Wilma alone, isn't it?

8 A Well, Wilma clearly identified that wind only was the
9 predominant root cause. And when you look at our other
10 initiatives that we have under our storm secure initiatives,
11 which is the increased vegetation trimming, which is the pole
12 inspection, we just could not ignore the wind-only component.
13 So, Wilma was the one where we identified the root cause, but
14 if you look at meteorological history, which is what we
15 anchored on for the proposal of extreme wind, you know, the
16 chances of having those types of winds in our service territory
17 in the future are very possible.

18 Q But you are not being discriminate about applying the
19 extreme wind standard, you're doing it throughout your service
20 territory regardless of proximity of trees, or vegetation, or
21 open areas, is that right?

22 A Well, we are deploying in a very targeted approach.
23 We are looking at the contours of the extreme wind map, and as
24 you know it has the different contours throughout our state,
25 and the southernmost part of our service territory where we

1 have the highest likelihood of having the strongest winds,
2 there we propose a 145-mile-an-hour zone, and as we move
3 throughout the state we will actually have three zones, one of
4 130 miles an hour and one at 105 miles per hour. So, it is not
5 a one-size-fits-all throughout our service territory. And then
6 we are also approaching it from a gradual implementation of
7 looking at our critical infrastructure, looking at incremental
8 hardening, and then looking at it also from the new
9 construction perspective.

10 Q But within those wind contour zones that you are
11 referring to, which are from the NESC, am I right?

12 A That's correct.

13 Q In those wind contour zones, there is a great
14 difference in the service territory and the location of your
15 distribution and your feeder poles, isn't that right?

16 A I'm sorry, could you clarify that?

17 Q I'll try it again. Within those wind contour zones,
18 your service territory as far as the feeders and the laterals
19 is not exactly the same as being in open areas, or in urban
20 others, or rural areas, it varies throughout that zone, is that
21 right?

22 A You mean the geography of our service territory?

23 Q Correct.

24 A Yes. I mean, we have very urban environments, we
25 have facilities with trees, we have facilities without trees,

1 it really varies across our service territory.

2 Q Mr. Miranda, on Page 16 of your direct testimony,
3 there is some uncertainties that you referred to. If you want
4 to look at Page 16, Line 8, do you see that?

5 A Yes.

6 Q In Line 10 you say that FPL's experience shows its
7 systems designed to withstand stronger winds have greater
8 overall resiliency to storms. Do you see that?

9 A Yes.

10 Q Now, when you say stronger winds, you're not talking
11 about extreme winds, you are just talking about stronger
12 construction, is that right?

13 A What we are referring to there is the different
14 levels of hurricanes, and having a Grade B construction that
15 can better withstand stronger winds.

16 Q Well, you have a comparison of Grade B and Grade C
17 construction, but not of extreme wind and Grade B or extreme
18 wind and Grade C construction, is that right?

19 A Correct. It is combined (inaudible) and wind Grade B
20 versus Grade C.

21 Q So, for example, in the exhibit that's at the end of
22 your testimony, the Davies?

23 A Yes.

24 Q Which am I to understand from your correction is not
25 for ten utilities, but for seven utilities?

1 A That's correct.

2 Q And, while you are turning to that, which is Exhibit
3 MBM-3, am I right that we don't know which seven utilities
4 those are that were subject to the Davies analysis?

5 A Subsequent to the deposition we were asked by Staff
6 to go back and look to see if we can get a release of
7 confidentiality from some of these utilities. Four of the
8 utilities released -- were willing to release their names,
9 three of them were not.

10 Q And have you released those four names to us?

11 A I can if you like.

12 Q Would you, please?

13 A Sure. One was Dominion, one was BG&E, one was SCANA
14 (phonetic), and the other one was Cleco (phonetic).

15 Q Are any of those utilities in Florida?

16 A No, they are not.

17 Q And I also wanted to ask you, did any of those
18 utilities build any of their systems to Grade B?

19 A It was a comparison of Grade C construction.

20 Q And there are utilities in Florida that have built to
21 Grade B, is that right?

22 A I understand that TECO builds to Grade B.

23 Q So we wouldn't be able to use this as a comparison --
24 I'm sorry, let me restate that. In fact, I'll withdraw that.

25 If we go back to Page 16, on Line 10 and 11, where I

1 read to you about withstanding stronger winds, after the comma
2 on Line 11, it says there is little directly measured data on
3 the improved resilience. Let me ask you is the Davies chart
4 that you have attached at the back the only data that we have
5 in the record?

6 A Yes, that's the data that we utilized for the
7 purposes of at least comparing the Grade C to the Grade B, and
8 what I was referring to in there is that, you know, there is no
9 forensics analysis after a hurricane that has been conducted on
10 the facilities that have been built to extreme wind.

11 Q So as we sit here today, we can't predict whether
12 facilities built to extreme wind will have improved resilience
13 over Grade B, for example?

14 A Well, I mean, if you look at my exhibit which shows
15 Grade B versus Grade C, the implication is that those
16 facilities that are built to a higher standard, like Grade B,
17 had we built our FPL facilities to a Grade C during Wilma we
18 may have seen maybe instead of a 1-1/2 percent pole failure
19 rate, maybe a 2-1/2 or 3 percent pole failure rate. And as far
20 as the forecast, as far as the benefits associated, what we
21 approached is, of course, we have a lot of direct experience
22 that we had following the '04 and '05 hurricane season to see
23 what the root causes were of the interruptions. So as we apply
24 these countermeasures, they tackle the root cause. We also
25 contracted with KEMA to assist us in developing our extreme

1 wind criteria and standards. Our own experience with our
2 transmission facilities and, of course, finally the Davies
3 exhibit that you referred to. So that was the foundation by
4 which we estimated what we thought the benefits would be.

5 Q Are you aware of any other studies in the record or
6 elsewhere that would contradict the conclusion that Grade B
7 facilities have improved resilience to storms over Grade C?

8 A That would contradict? No, I do not.

9 Q You don't remember our discussions of the KEMA
10 report?

11 A I remember you stated that they contradicted, and I
12 provided a clarification on what I thought the impression was
13 of that section of the KEMA report.

14 MR. SEIVER: Mr. Chairman, if I might for a moment, I
15 had discussed with Mr. Butler, counsel for FPL, there is
16 rebuttal testimony by Mr. Miranda that I also will ask him
17 about, and because his rebuttal testimony gets into that area
18 more, I would like to reserve my time for questioning him about
19 things like the KEMA report and some of the other rebuttal
20 issues until Mr. Miranda is up for rebuttal. I don't want to
21 be mixing up the jurisdiction of the direct and the rebuttal.

22 So if the Chair is all right with that, I'm going to
23 move on to a different subject. I didn't want to think that I
24 was just abandoning the KEMA report.

25 COMMISSIONER CARTER: Mr. Butler, is that your

1 understanding?

2 MR. BUTLER: If that's the way he would like to do
3 it, it is fine. I think it does relate to the rebuttal
4 testimony, so certainly it is okay for him to ask the questions
5 then.

6 COMMISSIONER CARTER: You may proceed.

7 MR. SEIVER: Thank you.

8 BY MR. SEIVER:

9 Q And, Mr. Miranda, when we were just talking about the
10 evidence about improved resilience, in that testimony on Page
11 16, the second item that you mentioned at Line 13 is that no
12 one can know for sure how frequently FPL's service territory
13 will be impacted by strong hurricanes?

14 A (Indicating yes.)

15 Q And that still is your testimony today, is that
16 right?

17 A That's correct. I mean, we cannot predict exactly
18 when the next hurricane will strike us, but like we always have
19 said, we have to be ready for the next one.

20 Q But you are relying on these meteorological analyses
21 that aren't in the record you say of increased storm activity
22 and likelihood of future storms?

23 A That's correct.

24 Q And, Mr. Miranda, is it fair to say then that as far
25 as building to extreme wind, that we have to make two

1 assumptions, the first that extreme wind will be more resilient
2 than other forms of construction, and that, second, there will
3 be more frequent hurricanes than nonfrequent, is that fair?

4 MR. BUTLER: I would object to the characterization
5 of more frequent hurricanes. Compared to what?

6 COMMISSIONER CARTER: Just ask the question a little
7 clearer.

8 MR. SEIVER: Do you agree, then, that there are two
9 assumptions, that the extreme wind will be more resilient, the
10 extreme wind construction will be more resilient to the storms,
11 and that there will be more frequent storms during this 30-year
12 period, is that right?

13 MR. BUTLER: Again, I'm going to object to the
14 question. More frequent compared to what? It is an ambiguous
15 question.

16 COMMISSIONER CARTER: Can you answer this question
17 based upon your experience?

18 THE WITNESS: I think the first part is our
19 assumptions being that based on our experience, you know, the
20 KEMA support, you know, the Davies study, and in our own
21 transmission experience, yes, that it will be based on those
22 experiences and the assumptions that we have put behind that.
23 And as far as the more frequency of storm, that is why we laid
24 out two scenarios, one every three years and one every five
25 years, not having the certainty, of course, of when those

1 storms will impact us.

2 BY MR. SEIVER:

3 Q And that is when we were discussing that over the
4 30-year period if a storm was every three years, there would be
5 a 70 percent storm savings, if there was a storm every five
6 years, there would be a 45 percent savings, is that right?

7 A Correct, to the distribution, to the restoration
8 efforts.

9 Q For the restoration cost savings, not including any
10 other benefits. Did you also consider in the extreme wind
11 construction process whether restoration times would be
12 extended because of either more poles being impacted or more
13 expensive and difficult poles to replace?

14 A Well, I believe that we would have shorter
15 restoration time, less poles that get damaged, which will
16 result in faster restoration time overall.

17 Q Did you look at for doing extreme wind of putting in
18 additional poles to shorten spans?

19 A Yes.

20 Q And did you look at the increased probability of
21 automobile accidents with the additional poles that are along
22 rights-of-way where cars travel?

23 MR. BUTLER: I would object.

24 COMMISSIONER CARTER: I don't think there is nothing
25 in the record to support that, so let's stay on task.

1 BY MR. SEIVER:

2 Q Did you consider any other unintended consequences of
3 building to extreme wind, Mr. Miranda?

4 A Unintended consequences. Could you elaborate?

5 Q Beyond storm hardening benefits?

6 A No. I think our main goal was to improve the
7 resiliency of our electric system and to make it stronger so it
8 can withstand these hurricane winds.

9 MR. SEIVER: That's all I have at this time, Mr.
10 Chairman.

11 COMMISSIONER CARTER: Before the next person,
12 Commissioners, any questions at this point in time? Obviously
13 we will have more time at the end, but I want to see if based
14 upon this do you have any questions? Otherwise we will go
15 ahead with the next person. And also at any time,
16 Commissioners, if you have any questions whatsoever we will do
17 that.

18 I think next will be Mr. Wright, is that correct?
19 You are recognized, sir.

20 MR. WRIGHT: Thank you, Mr. Chairman.

21 CROSS EXAMINATION

22 BY MR. WRIGHT:

23 Q Good afternoon, Mr. Miranda.

24 A Good afternoon, Mr. Wright.

25 Q Thank you.

1 I want to start by clarifying something that I
2 thought was already clear. You testified in response to some
3 questions by Mr. Seiver to the effect that Wilma was a Category
4 3 storm, correct?

5 A That's correct.

6 Q Have you reviewed the National Hurricane Center's
7 tropical cyclone report, the final report for Hurricane Wilma?

8 A Have I?

9 Q That's my question.

10 A No, I have not.

11 Q Are you aware that my clients filed that report in
12 various proceedings relating to undergrounding and storm
13 hardening before this Commission?

14 A They may have, I just don't recall reading it in
15 detail, but I just go by what the categories of the hurricane
16 were in our records, which is a Category 3 storm. I think
17 there are multiple opinions on that storm.

18 Q Will you agree that the National Hurricane Center's
19 official report and official measurements are as good an
20 opinion as one could get on the strength of that storm?

21 A I would say yes.

22 MR. WRIGHT: Mr. Chairman, I think the right thing
23 for me to do here is to explain the proffer that I wish to
24 make. I will be brief. I will aver to you -- and this
25 document has been submitted to the Commission at least twice in

1 connection with the proceedings that have been going on for the
2 last year and a half -- that the National Hurricane Center's
3 final tropical cyclone report on Hurricane Wilma includes all
4 of the official wind speed measurements for all the recording
5 stations for which data exists on mainland Florida and the
6 Florida Keys.

7 COMMISSIONER CARTER: Here's what we are going to do,
8 we are going to take about a three-minute break. Let me get a
9 chance to talk with staff and we will be back on that before we
10 do any proffer or anything like that, okay?

11 MR. WRIGHT: Certainly. May I just kind of close the
12 loop briefly?

13 COMMISSIONER CARTER: You may finish your statement.

14 MR. WRIGHT: I would simply -- I had not expected
15 this testimony because it's contradicted by the National
16 Hurricane Center's tropical cyclone report on Hurricane Wilma.
17 I was not prepared with an exhibit for that reason. It is an
18 official report of a recognized government agency. I would
19 like leave to provide it as a late-filed exhibit to this
20 proceeding.

21 COMMISSIONER CARTER: We will take three minutes.

22 MR. WRIGHT: Thank you.

23 (Off the record.)

24 COMMISSIONER CARTER: We are back on the record.

25 Mr. Wright, you're recognized.

1 MR. WRIGHT: Thank you, Mr. Chairman. To make it as
2 short as possible, I believe that FPL has no objection to my
3 request to introduce the National Hurricane Center's final
4 tropical cyclone report for Hurricane Wilma, and with that I
5 will move on to my few remaining questions.

6 COMMISSIONER CARTER: You're going to file it as a
7 late-filed exhibit, you said?

8 MR. WRIGHT: Yes, sir.

9 COMMISSIONER CARTER: Mr. Butler.

10 MR. BUTLER: Do you want to give it an exhibit
11 number?

12 COMMISSIONER CARTER: That will be 49.

13 (Late-filed Exhibit 49 marked for identification.)

14 MR. BUTLER: And I will observe we don't have any
15 objection to its admission, I certainly am not wanting that to
16 suggest that we necessarily agree with everything that's said
17 in it. We haven't even seen what it is yet, but we feel
18 confident that any comments we may feel the need to make about
19 it we can do in briefing.

20 COMMISSIONER CARTER: That sounds like a great idea.
21 So what we will do is we will just -- you'll reserve your right
22 to whatever objections that you may have at that point in time,
23 if any.

24 MR. BUTLER: I don't intend to object to it, I'm just
25 saying that I don't want to take my not objecting to it to mean

1 that I'm agreeing substantively with what it says.

2 COMMISSIONER CARTER: Okay. That's fine.

3 Mr. Wright, you any proceed.

4 MR. WRIGHT: Thank you, Mr. Chairman. And I will
5 endeavor to have copies for everybody by tomorrow, assuming
6 that we are back here tomorrow. And if not, I will have it to
7 the Clerk.

8 Thank you.

9 BY MR. WRIGHT:

10 Q Mr. Miranda, will you agree that underground
11 facilities are less vulnerable to wind damage than overhead
12 facilities constructed to extreme wind loading standards?

13 A Would you repeat that one more time?

14 Q Certainly. Will you agree that underground electric
15 distribution facilities are less vulnerable to wind damage than
16 are overhead facilities built to EWL criteria or standards?

17 A Up to a certain wind speed, Mr. Wright. In other
18 words, when it reaches catastrophic type winds, I'm not sure if
19 the underground system will have equal wind damage as the
20 overhead at a certain point, but up to that certain point, yes.

21 Q And in that context, what do you mean by
22 catastrophic?

23 A Like if you have got a Category 5 hurricane, a
24 Hurricane Andrew type storm.

25 Q Thank you.

1 Will you similarly agree that underground
2 distribution facilities are less vulnerable to damage from
3 wind-blown debris than overhead facilities built to extreme
4 wind loading criteria?

5 A Yes, they would have less damage from a wind blown.

6 Q Thank you. I noticed you remarked several places in
7 your testimony about FPL's storm secure plan, but you did not
8 make it an exhibit to your testimony.

9 MR. WRIGHT: Mr. Chairman, I would ask that what has
10 already been admitted as Exhibit 46, FPL's storm secure plan,
11 be received into the record of Docket 070301, as well. I can't
12 imagine there would be an objection.

13 COMMISSIONER CARTER: I believe it's already in
14 070301. Staff?

15 MS. FLEMING: Actually, it has only been entered in
16 Docket 070299 during the cross-examination of the Gulf witness,
17 but we could also identify it for Docket 070301.

18 COMMISSIONER CARTER: Mr. Butler.

19 MR. BUTLER: I have no objection to that.

20 COMMISSIONER CARTER: Okay. Well, then that will be
21 Exhibit 50.

22 MR. WRIGHT: I think it can just remain Exhibit 46,
23 if that's okay with everybody.

24 COMMISSIONER CARTER: Well, we are going to keep them
25 separated based upon each docket number. Is that correct?

1 MS. FLEMING: Exhibits have been identified
2 separately per docket number, but if it is a duplicative
3 exhibit we can just identify which docket that exhibit is
4 appearing in and only identify it once.

5 COMMISSIONER CARTER: Okay. So long as it's clear in
6 the record.

7 MS. FLEMING: Yes, sir.

8 COMMISSIONER CARTER: Show it done.

9 MR. WRIGHT: Thank you, Mr. Chairman.

10 COMMISSIONER CARTER: Any more curveballs?

11 MR. WRIGHT: Mr. Chairman, I hope they are all just
12 fast fastballs right down the pike.

13 COMMISSIONER CARTER: You're recognized.

14 MR. WRIGHT: Thank you.

15 BY MR. WRIGHT:

16 Q Mr. Miranda, in connection with Gulf's storm secure
17 plan -- FPL's storm secure plan, I apologize, FPL generally
18 supports undergrounding, is that a fair characterization?

19 MR. BUTLER: Mr. Wright, if you want to ask him about
20 the storm secure plan and having made it an exhibit, can you
21 provide him a copy of it, or we can probably do so, but I would
22 rather have him have it in front of him if you are going to be
23 asking him questions about it.

24 MR. WRIGHT: Mr. Chairman, in response to Mr.
25 Butler's question, I don't intend to ask him any real detailed

1 questions about it. I'll be happy to give him a copy of it.
2 Why don't I do that.

3 COMMISSIONER CARTER: Mr. Butler has one for him.
4 Let's just take a second here. Now, you say you only had,
5 like, one question, right?

6 MR. WRIGHT: I think what I said is that I don't have
7 any real detailed questions with regard to the storm secure
8 plan.

9 COMMISSIONER CARTER: You're recognized, sir.

10 MR. WRIGHT: Thank you.

11 BY MR. WRIGHT:

12 Q Mr. Miranda, FPL performed an analysis of storm
13 restoration cost savings from undergrounding that became part
14 of -- that led to the inclusion of FPL's governmental
15 adjustment factor proposal in its storm secure plan, is that
16 correct?

17 A That's correct.

18 Q And are you familiar with --

19 MR. BUTLER: I'm going to have to after the fact
20 object to the question. I believe that it is stating a
21 foundation that is incorrect. Could you repeat the question,
22 Schef? It took me a moment to understand the question you were
23 asking.

24 MR. WRIGHT: Certainly.

25 BY MR. WRIGHT:

1 Q FPL performed an analysis of the storm -- well, is it
2 true that FPL performed an analysis of the estimated storm
3 restoration cost savings for underground facilities that formed
4 the basis for FPL's proposed governmental adjustment factor
5 credit that is part of FPL's storm secure plan?

6 COMMISSIONER CARTER: That was quite convoluted,
7 wasn't it? Could you break it down into bite-sized chunks, Mr.
8 Wright, or was that a bite-sized chunk?

9 MR. WRIGHT: I shall try, Mr. Chairman. Thank you.

10 MR. BUTLER: Would it help for me to explain what my
11 confusion is about the question?

12 COMMISSIONER CARTER: That would be very helpful, Mr.
13 Butler. It would be appreciative at this point in time.

14 MR. BUTLER: We did propose the governmental
15 adjustment factor as one of the elements of storm secure, the
16 plan that Mr. Wright was referring to. But the economic
17 analysis he is talking about, we later filed a tariff and then
18 had a lengthy proceeding about the tariff, which is where the
19 economic analysis came up. And I was stumbling on the fact
20 that the chronology didn't seem right in his question. That
21 was really the reason for my objection and my seeking
22 clarification.

23 BY MR. WRIGHT:

24 Q Just so I'm clear, did you all do the economic
25 analysis to which Mr. Butler refers before or after you filed

1 the storm secure plan?

2 A It was after.

3 Q Thank you. That was my confusion. I apologize.

4 Mr. Miranda, are you aware of the provision of Rule
5 25-6.115 that requires CIAC calculations to incorporate other
6 operational cost differences into the CIAC calculations?

7 A Yes, I am.

8 Q And would you agree that that information would be
9 appropriate to inform the development of the storm hardening
10 plan?

11 A It's part of one of the CIAC requirements.

12 Q Thank you.

13 Are you aware that my clients have been awaiting
14 FPL's estimates of the other operational costs for sometime?

15 A I understand that. Subsequent to the rule coming
16 out, we have been working diligently trying to establish the
17 costs, the operational costs of an overhead system versus an
18 underground system, and there are some components within an
19 overhead system and an underground system which are easy to
20 clarify.

21 For example, you might have cable locations as an
22 underground expense, a nice simple bucket that we can identify.
23 Where we have run into a stumbling block has been, as you know,
24 the majority of a distribution system -- there is a hybrid
25 system, an overhead and underground system, and our work order

1 system is not designed to break those costs out. So we have
2 been working from the ground up to try to split those expenses
3 up into an overhead bucket and an underground bucket so that we
4 can determine the true operational costs between an overhead
5 system and an underground system.

6 One thing I will add, Mr. Wright, is that, as you
7 know, once we establish that numbers to which we are working to
8 provide you as quickly as we can, it will be retroactive, so
9 none of your clients hopefully will experience any economic
10 loss as a result of that factor not being in their hands today.

11 Q Thank you very much. Mr. Seiver asked you some
12 questions about the expected cost-effectiveness of FPL's storm
13 hardening plan, and I think that that relates to your testimony
14 at Page 18. I'm not sure I caught the specific details of your
15 colloquy with Mr. Seiver, but there was some discussion about
16 your analysis being based on the expectation that there would
17 be ten storms in 30 years, is that about right?

18 A We said a storm either every three years or a storm
19 every five years.

20 Q Would you agree that this line of analysis cuts both
21 ways?

22 A Could you clarify the question?

23 Q Sure. If storms are, in fact, more frequent than
24 every three years, the benefits of storm hardening will be
25 greater, correct?

1 A And that is what we have stated. If the frequency of
2 storms increases, we have even stated that if you continue to
3 have a Wilma type event every three years, you would recover
4 your costs -- it would be a break-even, and if it comes even
5 more frequent than that, like the '04 and '05 hurricane
6 seasons, it would be greater than that.

7 Q I wanted to ask you the same question with regard to
8 the potential for higher strength or higher category storms.

9 A We have, you know, designed our wind zones according
10 to the NESC map. If the storm is of a higher strength, like it
11 is a Wilma, Cat 3, then they will obviously have more benefits.
12 But if it is catastrophic, if you have a Category 5, then the
13 benefits, of course, don't play as great for anybody because
14 that is not what we are designing our infrastructure towards.

15 Q I have, I think, just one question for you about
16 FPL's deployment plans for 2008 and 2009, which is addressed in
17 your testimony at Page 13 and 14. And my question is, I hope
18 simply, is the list of 2008 and 2009 CIF projects that has been
19 submitted as Exhibit MBM-2 to your direct testimony, is that
20 what we have in connection with FPL's plan regarding its
21 deployment plan for '08 and '09?

22 A Well, what we have stated is that our intent is to
23 complete all the acute care facilities, the small hospitals,
24 and the 911 facilities by the end of 2009, and that is just a
25 listing of the circuits. We have also provided the primary

1 diagram of where these facilities are located.

2 Q Was that provided in discovery or within the plan
3 document itself?

4 A I think it was an interrogatory document request.

5 MR. BUTLER: It's actually in his rebuttal exhibits,
6 Schef.

7 Q Thanks.

8 Mr. Miranda, has FPL conducted any benefit/cost
9 analysis of extreme wind loading built overhead facilities as
10 compared to underground facilities for different categories of
11 storms?

12 A I'm not quite following your question. Try it one
13 more time.

14 Q Have you done any benefit/cost analysis of
15 undergrounding as compared to building facilities to extreme
16 wind loading criteria, just that question by itself?

17 A I would say that if you look at the basis by which we
18 developed a GAF it was almost on an equal platform as we have
19 developed for the extreme winds. So you can almost compare
20 those two cost/benefit analysis, one for the underground system
21 and the other one for the extreme wind.

22 Q Okay. And then the question I was trying to get to
23 is have you done any further analyses that compared overhead
24 facilities built to EWL standards to underground for different
25 categories of storm?

1 A We did it for an average number of storms, for the
2 average type of storm that we experienced in 2004 and 2005, and
3 then we also for the underground looked at a storm every three
4 years and a storm at every five years. So if you took those
5 two cost/benefit analyses you could make a comparison between
6 extreme wind and the underground system.

7 Q Thank you. I just have a couple of questions with
8 regard to your testimony at Pages 19 and 20 where you are
9 discussing FPL's plan as producing optimum results. And as I
10 understand your testimony, you define optimum in this context
11 as being the best results for a given level of expenditure. Is
12 that an accurate characterization?

13 A Yes.

14 Q Wouldn't you agree that the level of expenditure
15 itself has to be considered in determining whether optimum
16 results are achieved?

17 A One more time.

18 Q Well, your testimony posits holding the level of
19 expenditure constant, is that fair?

20 A I think my testimony was along the lines of being
21 cost-effective, and that the approach that we are taking to
22 hardening our infrastructure really ramps up from the most
23 cost-effective once we have identified what needs to be
24 hardened from our tool kit all the way up to, in some cases,
25 undergrounding facilities.

1 Q And my question goes to this: Wouldn't you agree
2 that if you could spend some incremental money and get benefits
3 greater than incremental cost, that that also would be an
4 optimizing expenditure?

5 A It could be viewed that way.

6 Q Would you agree that it would be appropriate to view
7 it that way?

8 A Again, the approach we took was we made the decision
9 that we wanted to harden our critical infrastructure, build to
10 the extreme wind, and then take the most cost-effective
11 approach to achieve that objective.

12 MR. WRIGHT: Thank you. That's all the questions I
13 have, Mr. Chair.

14 COMMISSIONER CARTER: Thank you.

15 Commissioner McMurrin.

16 COMMISSIONER McMURRIAN: Thank you.

17 Mr. Miranda, I have a question or two with respect to
18 the GAF tariff that was approved recently. Have any
19 communities availed themselves of this offering at this time?

20 THE WITNESS: We currently have a lot of active
21 requests. We currently have the requests coming in different
22 facets, and I will answer you directly. In those communities
23 that generally start with a ballpark request and then they will
24 just ask for generic, but then they move into what we call a
25 binding estimate request phase. We currently have 18

1 communities that are in the binding estimate phase, of which
2 four of them are pretty active, and we have one community that
3 we have already given a GAF and it is now moving into the
4 second phase of their development, which is the Jupiter Island
5 project. And we are getting ready to provide them their
6 estimate. We did the pilot already, that has been completed,
7 and we are getting ready to do Phase A, which is part of a
8 five-phase project, and we are getting ready to provide them
9 their estimates in the next day or two.

10 COMMISSIONER McMURRIAN: Thank you. And I guess one
11 follow up to that. In fact, you probably mentioned it there.
12 I think there was some window for the offering. Can you remind
13 me when that wind closes?

14 THE WITNESS: It's through October of 2008.

15 COMMISSIONER McMURRIAN: Thank you.

16 Thank you, Chairman.

17 COMMISSIONER CARTER: Thank you, Commissioner.

18 Before I ask staff, any other parties have any
19 questions of this witness on cross?

20 Staff, you're recognized.

21 MS. FLEMING: We have no questions.

22 COMMISSIONER CARTER: That was easy.

23 Mr. Butler.

24 MR. BUTLER: I have a very brief redirect.

25 REDIRECT EXAMINATION

1 BY MR. BUTLER:

2 Q Mr. Miranda, you were asked about Hurricane Wilma.
3 Do you consider Hurricane Wilma to be a unique hurricane impact
4 on FPL's service territory?

5 A I guess in all of our discussions we are always
6 talking about Wilma in that context, and I guess unique only in
7 the sense that we were able to get some really great forensic
8 data. But hurricanes of Wilma, I fully expect will continue to
9 come into our territory for years to come, and there is nothing
10 unique about hurricanes hitting our service territory. And so,
11 a Wilma type storm, in my view, is not unique. We will
12 continue to experience hurricanes going forward in FPL's
13 territory.

14 MR. BUTLER: Thank you.

15 That's all the redirect that I have.

16 COMMISSIONER CARTER: Okay. Let's get ourselves in
17 the proper posture here. I think we've got exhibits
18 numbered --

19 MR. BUTLER: I would move Exhibits 20, 21, and 22,
20 which are the prefiled exhibits with Mr. Miranda's testimony.

21 COMMISSIONER CARTER: 20, 21 and 22. I'm showing --
22 I suppose these would be for rebuttal are the other ones?

23 MR. BUTLER: Mr. Chairman, it is probably worth
24 noting on the record is that in Exhibit 1 of the staff exhibit
25 list, Mr. Miranda's Exhibits MBM-4, 5, and 6 actually appear

1 twice. They appear as 23, 24, and 25, which would be direct
2 exam exhibits, and then they reappear as 41, 42, and 43.
3 Really those latter numbers, the 41, 42, and 43 are probably
4 appropriate because they are rebuttal exhibits, they are to his
5 rebuttal testimony, not to his direct testimony.

6 COMMISSIONER CARTER: So they are probably
7 appropriate in the sequence where they fall, but what about 23,
8 24, and 25?

9 MS. FLEMING: Staff would suggest that 23, 24, and 25
10 not be moved into the record as direct because they are, in
11 fact, rebuttal exhibits, and they are labeled accordingly as
12 41, 42, and 43 and we can move them in at the time that we take
13 up the rebuttal exhibits.

14 COMMISSIONER CARTER: Okay. Let's get ourselves
15 together here, then. So we are dealing with Exhibits 20, 21,
16 and 22, is that correct?

17 MR. BUTLER: That's correct.

18 COMMISSIONER CARTER: Any objections? Show it done.
19 (Exhibits 20, 21, and 22 admitted into the record.)

20 COMMISSIONER CARTER: Ms. Fleming, where are we now
21 procedurally?

22 MR. WRIGHT: Mr. Chairman.

23 COMMISSIONER CARTER: Mr. Wright.

24 MR. WRIGHT: I apologize. Just to the extent
25 necessary, I do want to confirm that Exhibit 46 has been

1 recognized in Docket 070301.

2 COMMISSIONER CARTER: Exhibit Number 46, yes, as in
3 070301, FPL's storm hardening plan.

4 (Exhibit 46 admitted into the record.)

5 MR. WRIGHT: Thank you.

6 COMMISSIONER CARTER: Is that where we are, staff?
7 That's what I have.

8 MS. FLEMING: Yes, that is correct.

9 MR. WRIGHT: And I just wanted to confirm that
10 subject to any conceivable objection which we don't expect,
11 Exhibit 49, which will be the National Hurricane Center's
12 tropical cyclone report on Wilma will be received as Exhibit
13 49.

14 COMMISSIONER CARTER: Show it done. No objections on
15 that from Mr. Butler, right?

16 MR. BUTLER: No.

17 COMMISSIONER CARTER: Okay. Ms. Fleming.

18 MS. FLEMING: I believe that brings us to TECO's
19 Witness Haines.

20 COMMISSIONER CARTER: Give us a second here.

21 MR. BUTLER: May Mr. Miranda be excused?

22 COMMISSIONER CARTER: For now.

23 Mr. Willis.

24 REGAN B. HAINES

25 was called as a witness on behalf of Tampa Electric Company,

1 and having been duly sworn, testified as follows:

2 DIRECT EXAMINATION

3 BY MR. WILLIS:

4 Q Mr. Haines, could you please state your name and
5 address for the record.

6 A Yes. My name is Regan B. Haines, and my business
7 address is 702 North Franklin Street, Tampa, Florida 33601.

8 Q Have you previously been sworn?

9 A Yes, I have.

10 Q Mr. Haines, did you prepare and cause to be prefiled
11 the prepared direct testimony of Regan B. Haines in this
12 docket, which is Docket Number 070297-EI?

13 A Yes, I did.

14 Q Do you have any additions or corrections to that
15 testimony?

16 A Yes, I do.

17 On Page 23 of my direct testimony, on the response
18 for the first question, I would like to add Section 8.2.2 to
19 the list of sections that we are seeking approval for.

20 Q And that would be on Line 7?

21 A That is correct.

22 Q Did you prepare an exhibit titled "Exhibit of Regan
23 B. Haines," which was attached to your prepared direct
24 testimony?

25 A Yes, I did.

1 MR. WILLIS: Mr. Chairman, that exhibit has been
2 premarked as Exhibit Number 8.

3 COMMISSIONER CARTER: Is that shown our list as 38?

4 MR. WILLIS: No, it's shown as Exhibit 8. I think
5 our rebuttal exhibit is 38.

6 COMMISSIONER CARTER: Okay. I'm taking a step back
7 now. Oh, I'm reminded now that we agreed to take Mr. Haines
8 out of order. You're out of order. (Laughter.)

9 MR. WILLIS: The order has arrived. (Laughter.)

10 BY MR. WILLIS:

11 Q Mr. Haines, if I were to ask you the questions
12 contained in your prepared direct testimony, would your answers
13 be the same if they were asked you here today with the
14 correction that you have already noted?

15 A Yes, they would be.

16 MS. FLEMING: I would ask that Mr. Haines' prepared
17 direct testimony be inserted into the record as though read.

18 COMMISSIONER CARTER: His prefiled testimony will be
19 accepted into the record as though read.

20

21

22

23

24

25

1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**2 **PREPARED DIRECT TESTIMONY**3 **OF**4 **REGAN B. HAINES**5
6 **Q.** Please state your name, address, occupation and employer.7
8 **A.** My name is Regan B. Haines. My business address is 702
9 North Franklin Street, Tampa, Florida 33602. I am
10 employed by Tampa Electric Company ("Tampa Electric" or
11 "company") as Director, Engineering in the Energy
12 Delivery Department.13
14 **Q.** Please provide a brief outline of your educational
15 background and business experience.16
17 **A.** I graduated from Clemson University in June 1989 with a
18 Bachelor of Science degree in Electrical Engineering and
19 again in December 1990 with a Master of Science degree
20 in Electrical Engineering specializing in Power Systems
21 Engineering. I have been employed at Tampa Electric
22 since 1998. My work has included various positions in
23 the areas of transmission and distribution system
24 planning and engineering within the Energy Delivery
25 Business Unit. In my current position I am responsible

1 for directing activities associated with the designing,
2 engineering, performance analysis, and various
3 construction services for the electric transmission and
4 distribution ("T&D") systems from the generator to the
5 customer's meter as well as directing activities for
6 Fleet (Vehicle) Services (engineering and operations)
7 and services performed on the customer's side of the
8 meter by Power Engineering & Construction. I also
9 oversee all joint use activities.

10
11 **Q.** What is the purpose of your testimony in this proceeding?

12
13 **A.** My testimony supports Tampa Electric's Storm Hardening
14 Plan filed on May 7, 2007 as required by Commission Rule
15 25-06.0342(2), F.A.C., which was adopted in Order No.
16 PSC-07-0043-FOF-EU ("Order No. 07-0043") on January 16,
17 2007. My testimony addresses each of the issues which
18 have been identified in Docket No. 070297-EI.

19
20 **Q.** Do you sponsor an exhibit in support of your testimony?

21
22 **A.** Yes, Exhibit No. ____ (RBH-1), consisting of three
23 documents, was prepared under my direction and
24 supervision. Document No. 1 is Tampa Electric's Storm
25 2007 - 2009 Hardening Plan filed on May 7, 2007 ("Tampa

1 Electric's Plan"). Document No. 2 is a matrix of the
2 costs and benefits of Tampa Electric's storm hardening
3 initiatives, which was provided to Florida Public Service
4 Commission ("FPSC" or the "Commission") Staff and all
5 parties in this docket on July 30, 2007. Document No. 3
6 is Tampa Electric's proposed process for providing
7 additional information to third party attachers
8 concerning the projects identified in Tampa Electric's
9 Plan.

10
11 **Q.** Describe Tampa Electric's system.

12
13 **A.** Tampa Electric currently serves approximately 660,000
14 customers and its service area covers 2,000 square miles
15 in West Central Florida, including all of Hillsborough
16 County and parts of Polk, Pasco and Pinellas counties.
17 Tampa Electric's transmission system consists of
18 approximately 1,200 miles of overhead facilities (26,000
19 poles) and 14 miles of underground facilities. The
20 company's distribution system consists of approximately
21 6,100 miles of overhead lines (303,000 poles) and 7,300
22 miles of underground lines. Tampa Electric also has
23 approximately 330,000 authorized third party attachments
24 on its T&D poles.

25

1 Q. Please summarize your testimony.

2

3 A. Tampa Electric's Plan, which was developed in conformance
4 to Order No. 07-0043, is an important part of Tampa
5 Electric's multi-pronged approach to enhance the
6 reliability of the overhead and underground electrical
7 T&D facilities. Tampa Electric's Plan contemplates
8 continuing to build to National Electrical Safety Code
9 ("NESC") Grade B construction for all new major planned
10 expansion, rebuild or relocation of distribution
11 facilities as the company has done since the 1970's.
12 Grade B construction is significantly stronger than Grade
13 C construction. Although Grade C construction is the
14 typical minimum guidelines used for most electric systems
15 in the United States building to Grade B construction
16 fits with the storm profiles that have been experienced
17 in Tampa Electric's service area for the last 150 years.
18 The National Oceanic Atmospheric Administration ("NOAA")
19 Coastal Service Center records over the last 150 years
20 show that the maximum sustained wind experienced in Tampa
21 Electric's service territory during this time frame was
22 115 mph. Moreover, the NESC extreme wind maps covering
23 Tampa Electric's service area range from 100 mph in the
24 east to 120 mph in the western edge. Grade B
25 construction has an effective wind speed of 116 mph which

1 is a reasonable fit for Tampa Electric's service area
2 while Grade C construction has an effective wind speed of
3 only 85 mph.
4

5 In addition, my testimony supports Tampa Electric's Plan
6 to conduct several targeted pilot projects to upgrade its
7 Grade B construction to extreme wind on two circuits
8 serving critical facilities in the City of Tampa: the
9 port of Tampa and St. Joseph's Hospital. Also, one of
10 the 69kV circuits serving Tampa International Airport
11 will be upgraded from wood pole construction to non-wood
12 construction. Additionally, new distribution overhead
13 crossings of interstate highways and major expressways
14 will be constructed underground. The effect of the
15 upgrades undertaken in the pilot projects will be
16 evaluated after any occurrence of extreme weather in
17 Tampa Electric's service area to determine if a more
18 widespread application of the NESC extreme wind criteria
19 would be cost effective.
20

21 Tampa Electric's Plan provides a reasonable, measured
22 approach to storm hardening. The company's Plan is part
23 of a multi-pronged approach by the Commission to improve
24 system reliability and resiliency during and after
25 extreme weather conditions.

1 Tampa Electric's Plan is incremental to the Pole
2 Inspection Program previously approved by the Commission
3 in Orders PSC-06-0778-PAA-EU and PSC-06-0855-CO-EU and
4 issued on September 18, 2006 and October 13, 2006
5 respectively in Docket No. 060531-EU, as well as the Ten-
6 Point Storm Preparedness Plan approved in Orders PSC-06-
7 0947-PAA-EI and PSC-06-1012-CO-EI issued November 13,
8 2006 and December 8, 2006 respectively in Docket No.
9 060198-EI. The approved Pole Inspection Program and the
10 Ten-Point Storm Preparedness Plan are not at issue in
11 this proceeding; they are being implemented. Tampa
12 Electric's Plan is filed in response to Commission Rule
13 25-06.0342 adopted in Order No. 07-0043. This rule
14 provides in pertinent part:

15 (1) Application and Scope. This rule is
16 intended to ensure the provision of safe,
17 adequate, and reliable electric
18 transmission and distribution service for
19 operational as well as emergency purposes;
20 require the cost-effective strengthening
21 of critical electric infrastructure to
22 increase the ability of transmission and
23 distribution facilities to withstand
24 extreme weather conditions; and reduce
25 restoration costs and outage times to end-

1 use customers associated with extreme
2 weather conditions. This rule applies to
3 all investor-owned electric utilities.

4

5 Tampa Electric's Plan complies with Rule 25-06.0342 by
6 providing a reasonable and measured approach to storm
7 hardening.

8

9 **Q.** Does the company's Plan reasonably address the extent to
10 which the extreme wind loading standards specified by
11 Figure 250-2(d) of the 2007 edition of the NESC are
12 adopted for new distribution facility construction?

13

14 **A.** Yes. Tampa Electric has historically designed its
15 distribution facilities based on Grade B construction
16 even though Grade C construction is typically the minimum
17 standard for most electrical distribution systems.

18

19 While Tampa Electric's Plan does not propose building to
20 extreme wind standards for new construction, it does
21 provide for continuing to build to NESC Grade B
22 construction for all new overhead distribution
23 facilities. This plan is reasonable because the maximum
24 sustained winds experienced over the last 150 years in
25 Tampa Electric's service area is 115 mph and construction

1 Grade B is designed to effectively withstand 116 mph
2 winds. Since Grade B construction is significantly
3 stronger than Grade C construction and Tampa Electric
4 proposes to continue to build to Grade B construction,
5 Tampa Electric's distribution facilities not only comply
6 but exceed the minimum requirements of the NESC.
7

8 **Q.** Does the company's Plan reasonably address the extent to
9 which the extreme wind loading standards specified by
10 Figure 250-2(d) of the 2007 edition of the NESC are
11 adopted for major planned work on the distribution
12 system, including expansion, rebuild, or relocation of
13 existing facilities, assigned on or after the effective
14 date of this rule distribution facility construction?
15

16 **A.** Yes. Tampa Electric's Plan to continue building to Grade
17 B construction for all major planned expansions, rebuilds
18 or relocations of distribution facilities is reasonable.
19 As indicated above, Grade B construction is a reasonable
20 fit for Tampa Electric's service area.
21

22 **Q.** Does the company's Plan reasonably address the extent to
23 which the extreme wind loading standards specified by
24 Figure 250-2(d) of the 2007 edition of the NESC are
25 adopted for distribution facilities serving critical

1 infrastructure facilities and along major thoroughfares
2 taking into account political and geographical boundaries
3 and other applicable operational considerations?
4

5 **A.** Yes. Tampa Electric's Plan to continue building to NESC
6 Grade B construction for all critical infrastructure and
7 major thoroughfares is reasonable. Tampa Electric plan
8 to undertake the specific pilot projects identified in
9 its Plan is reasonable. The pilot projects, which will
10 be built to extreme wind, will be monitored and analyzed
11 to determine cost-effectiveness prior to consideration of
12 wide-spread application. Tampa Electric's Plan is a
13 reasonable measured approach to the hardening of its
14 system.
15

16 **Q.** Does Tampa Electric's Plan include the replacement of
17 poles which meet Grade C construction strength criteria
18 but which fail Grade B construction?
19

20 **A.** Yes. Tampa Electric's Plan contemplates continuing the
21 replacement of any pole which does not meet its standard
22 of Grade B construction. However, parties in this docket
23 have questioned whether the Commission expected Tampa
24 Electric to continue to harden its system with the
25 objective of having the entire system built to Grade B

1 construction. As previously stated, Grade B construction
2 will effectively withstand winds up to 116 mph which is
3 consistent with the strength of storms experienced since
4 the 1850's in the Tampa Electric service area.
5 Therefore, the company's Plan provides an appropriate
6 continuing migration of its system to Grade B
7 construction.

8

9 **Q.** Does the company's Plan reasonably address the extent to
10 which its distribution facilities are designed to
11 mitigate damage to underground and supporting overhead
12 transmission and distribution facilities due to flooding
13 and storm surges?

14

15 **A.** Yes. Tampa Electric's proposed standard for all new and
16 maintenance replacement of underground distribution
17 facilities (*i.e.*, padmounted transformers, switchgear,
18 load break cabinets and padmounted capacitors) located in
19 Flood Zone 1 designated areas will be of stainless steel
20 or aluminum construction with submersible connectors and
21 bolted to the concrete pad is reasonable.

22

23 **Q.** Does Tampa Electric's planned hardening of underground
24 facilities in Flood Zone 1 affect third party attachers?

25

1 **A.** No. Tampa Electric's Plan addresses the specific
2 electrical equipment required for new and maintenance
3 replacement of underground facilities in Flood Zone 1
4 areas. Tampa Electric's underground construction
5 standards in Flood Zone 1 areas have no effect on any
6 third party attacher.

7
8 **Q.** Does the company's Plan reasonably address the extent to
9 which the placement of new and replacement distribution
10 facilities facilitate safe and efficient access for
11 installation and maintenance pursuant to Rule 25-6.0341,
12 F.A.C.?

13
14 **A.** Yes. Tampa Electric's policy of placing all new
15 distribution facilities in public right-of-way ("ROW"),
16 which is typically in front of the customer's premise,
17 and not building in rear lot easements to the extent
18 practicable is reasonable. The company will also
19 continue to evaluate community or customer requests to
20 relocate overhead facilities from rear lot locations to
21 the front of customer's properties on a case-by-case
22 basis for feasibility, practicality, and cost
23 effectiveness.

24
25 **Q.** Does Tampa Electric's Plan to place all new distribution

1 facilities in public ROW to the extent practical affect
2 third party attachers?

3

4 **A.** Yes, but in a positive way. Access to all facilities
5 will be improved, thereby reducing repair and restoration
6 time. In addition, when a customer or community requests
7 a relocation of overhead facilities from rear lot to the
8 ROW in front of customer's property, it is reasonable to
9 review each case for feasibility, practicality and cost
10 effectiveness. As required by Rule 25-6.0341, third
11 party attachers will be notified, and an attempt in good
12 faith will be made to accommodate concerns of third party
13 attachers. Construction will also be coordinated.

14

15 **Q.** Does the company's Plan provide a detailed description of
16 its deployment strategy including a description of the
17 facilities affected including technical design
18 specifications, construction standards, and construction
19 methodologies employed?

20

21 **A.** Yes. The three year deployment strategy described in
22 Tampa Electric's Plan and listed below is reasonable.

23

24

2007

25

Port of Tampa (extreme wind pilot project). The Port of

1 Tampa serves 10 petroleum distribution customers that
2 deliver 40 percent of the gasoline in Florida. Six miles
3 of distribution feeder will be rebuilt to meet the
4 extreme wind requirements as shown in Fig. 6 of the Plan.
5 This extreme wind pilot project will be deployed over
6 three years. Specifically, the company will:

- 7 • Engineer and re-build the three-mile feeder to the
8 north of Maritime Substation to Extreme Wind Grade B
9 construction. This will include upgrading 111
10 distribution poles and replacing 38 wood
11 transmission poles with non-wood poles at an
12 estimated cost of \$760,000.

13 **Downtown Tampa**

- 14 • Inspect and test six network protectors in low lying
15 areas.

16 **Convert to Uniform Distribution Voltage and Standard** 17 **Construction**

- 18 • Engineer the conversion of three 4kV circuits to the
19 13 kV standard.

20 **Harden Interstate Crossings**

- 21 • Engineer and construct the conversion of four
22 distribution overhead interstate (I-75) crossings to
23 underground.

24 **2008**

25 **Port of Tampa (extreme wind pilot project)**

- 1 • Engineer and re-build one-mile feeder to the south
2 of the Maritime Substation to Extreme Wind Grade B
3 construction. This will include upgrading
4 approximately 37 distribution poles at an estimated
5 cost of \$120,000.

6 **St. Joseph's Hospital (extreme wind pilot project)**

- 7 • While there are several hospitals in Tampa
8 Electric's service territory that are considered
9 critical customers, St. Joseph's Hospital was chosen
10 for this pilot program because of its Level 2 Trauma
11 Center status, central location, high elevation and
12 the cost effectiveness of the hardening activities.
13 The distribution feeder serving the hospital is
14 approximately one mile in length and will be rebuilt
15 to meet the extreme wind requirements. The
16 hardening measures to be employed include replacing
17 37 distribution poles with stronger class wood poles
18 at an estimated cost of \$120,000 and six wood
19 transmission poles with non-wood poles at an
20 estimated cost of \$70,000.
- 21 • Engineer and rebuild the one-mile distribution
22 feeder serving the hospital to meet the NESC Extreme
23 Wind Grade B construction standard.

24 **Downtown Tampa**

- 25 • Inspect and test six network protectors in low-lying

1 areas.

2 **Convert to Uniform Distribution Voltage and Standard**
3 **Construction**

- 4 • Construct three 4kV circuits to the 13kV standard.

5 **Harden Interstate Crossings**

- 6 • Engineer and construct the conversion of four
7 distribution overhead interstate (I-75) crossings to
8 underground.

9 **2009**

10 **Port of Tampa (extreme wind pilot project)**

- 11 • Engineer and rebuild a two mile feeder from an
12 alternative substation to Extreme Wind Grade B
13 construction, to pick up three miles of a previously
14 rebuilt (from 2007 and 2008) feeder should a
15 flooding event at the Maritime Substation site
16 occur. This will include upgrading 74 distribution
17 poles at an estimated cost of \$240,000. An
18 additional benefit of this project is the fact that
19 the Hillsborough County Sheriff's Operation Center
20 will also be served from the hardened feeder.

21 **Tampa International Airport**

- 22 • Tampa International Airport is served by six
23 distribution circuits which are all underground and
24 emanate from one substation. Tampa Electric's plan
25 is to upgrade a transmission segment feeding the

1 Skyway substation to current extreme wind
2 construction standards. The project consists of
3 replacing 62 existing wood transmission poles with
4 steel or concrete poles. While Skyway substation
5 has multiple transmission feeds, this project will
6 ensure that one of them is upgraded to non-wood
7 structures to meet current construction standards.
8 The project will be completed in 2009 at an
9 estimated cost of \$618,000. This project enhances
10 the reliability of the transmission system serving
11 the Tampa International Airport, one of the most
12 critical facilities located in Tampa Electric's
13 service area.

14 **Downtown Tampa**

- 15 • Inspect and test six network protectors in low-lying
16 areas.

17 **Harden Interstate Crossings**

- 18 • Engineer and construct the conversion of four
19 distribution overhead interstate (I-275) crossings
20 to underground.

21
22 **Q.** Will Tampa Electric's Plan to convert overhead
23 distribution interstate crossings to underground affect
24 third party attachers?
25

1 **A.** No, not at all. The poles on either side of the
2 interstate will remain in place providing an option for
3 third party attachers to continue traversing the
4 interstate overhead.

5
6 **Q.** Does the company's Plan include a detailed description of
7 the communities and areas within the utility's service
8 area where the electric infrastructure improvements will
9 occur, including facilities identified by the utility as
10 critical infrastructure and along major thoroughfares?

11
12 **A.** Yes. All of the projects discussed above and identified
13 in Tampa Electric's Plan are within the City of Tampa.

14
15 **Q.** Please describe all of the proposed changes to the
16 company's current construction standards, policies,
17 practices and procedures contained in its Plan that will
18 have an incremental affect on a third party attacher?

19
20 **A.** Tampa Electric has proposed various enhancements to its
21 construction standards, including the incorporation of
22 stainless steel or aluminum equipment in all new
23 underground construction and repairs in designated Flood
24 Zone 1 areas and the undergrounding of interstate and
25 major freeway distribution crossings. The company is

1 taking a targeted pilot approach on extreme wind
2 enhancements to its overhead system that will, along with
3 the other standards changes mentioned, have a minimal
4 affect on third party attachers.

5
6 **Q.** Is the requirement for third party attachers to notify
7 and receive approval prior to attaching to the company's
8 facilities a change or new requirement to the company's
9 current construction standards, policies, practices and
10 procedures contained in its Plan?

11
12 **A.** No. The requirement of a third party attacher to notify
13 and receive approval prior to overlashing is not a new
14 requirement. It is a contractual obligation of those
15 third party cable attachers who wish to attach any new
16 facilities, including overlashing. Third party attachers
17 have the obligation to ensure that their facilities do
18 not violate Tampa Electric's construction standards,
19 which require that nothing be placed on a pole that is
20 not engineered to be there. Rule 25-06.0342(5), F.A.C.
21 provides in pertinent part:

22 (5) The Attachment Standards and Procedures
23 shall . . . assure as far as reasonably
24 practicable, that third party facilities
25 attached to electric transmission and

1 distribution poles do not impair electric
2 safety, adequacy, or pole reliability; do
3 not exceed pole loading capacity; and are
4 constructed, installed, maintained and
5 operated in accordance with generally
6 accepted engineering practices for the
7 utility's service area.

8
9 **Q.** Does the company's Plan provide a detailed description of
10 the extent to which the electric infrastructure
11 improvements involve joint use facilities on which third
12 party attachments exist?

13
14 **A.** Yes. Tampa Electric has met with third party attachers,
15 accompanied attachers to the physical location and rode
16 the routes of the pilot projects with all interested
17 third party attachers. The attachers have been provided
18 sufficient details of the proposed pilot projects. They
19 know the routes involved, the number of poles affected,
20 and Tampa Electric's projected costs for all of the
21 projects included in Tampa Electric's Plan.

22
23 **Q.** Does the company's Plan provide a reasonable estimate of
24 the costs and benefits to the utility of making the
25 electric infrastructure improvements, including the

1 effect on reducing storm restoration costs and customer
2 outages?

3
4 **A.** Yes. As shown on Exhibit No. ____ (RBH-1), Document No.
5 2, Tampa Electric's Plan cost estimates, which were
6 developed utilizing current work methods, products and
7 equipment, are: \$1.022 million in 2007, \$1.01 million in
8 2008 and \$1.078 million in 2009. Detailed plans for all
9 three years have been provided. The pilot projects Tampa
10 Electric proposes, will provide for upgrades from NESC
11 Grade B construction to Extreme Wind Grade B
12 construction, and they may also provide societal benefits
13 in excess of costs if these projects decrease the chance
14 of outages in storm conditions or reduce restoration
15 times after a storm. While the precise calculation of
16 benefits depends on the actual occurrence of a storm and
17 an evaluation of how the hardened facilities perform
18 during and after storm conditions, the primary benefit of
19 these pilot projects is that they will provide valuable
20 information as a comparison to those facilities built to
21 NESC Grade B construction and on the feasibility of
22 upgrading other facilities should they demonstrate
23 superior performance.

24
25 In addition, the other projects and construction standard

1 upgrades proposed by Tampa Electric for 2007, 2008 and
2 2009 are reasonable. These other projects include: (1)
3 Downtown Tampa, the major business center in Tampa
4 Electric's service area; (2) Tampa International Airport;
5 (3) conversion of overhead distribution interstate
6 crossings to underground; (4) mitigation of damage due to
7 flood and storm surge with upgrades to improve
8 restoration times after submersion by flood or storm
9 surge; and (5) conversion to uniform distribution voltage
10 and standard construction to improve restoration times.
11 While the precise calculation of benefits depends on the
12 actual occurrence of a storm and an evaluation of how the
13 hardened facilities performed during and after storm
14 conditions, it is assumed that if a named storm hits the
15 Tampa Bay area, the critical facilities identified here
16 are more likely to remain in service longer and be
17 restored quicker if the proposed hardening activities are
18 completed. A calculation of these benefits is shown on
19 Exhibit No. ____ (RBH-1), Document No. 2, which was
20 previously furnished to Commission Staff and third party
21 attachers.

22
23 **Q.** Does the company's Plan provide a reasonable estimate of
24 the costs and benefits to third party attachers affected
25 by the electric infrastructure improvements, including

1 the effect on reducing storm restoration costs and
2 customer outages realized by the third party attachers?

3
4 **A.** With the information provided in Tampa Electric's Plan
5 filed, the additional information provided in Document
6 No. 2 to my Exhibit No. ____ (RBH-1), Tampa Electric's
7 cost benefit matrix, and company responses to Commission
8 Staff's interrogatories filed August 13, 2007 as well as
9 information provided in meetings and accompanying third
10 party attachers on rides along the affected routes of
11 pilot projects, third party attachers should be able to
12 estimate their costs resulting from the implementation of
13 the pilot projects identified in Tampa Electric's Storm
14 Hardening Plan. While it is difficult to calculate the
15 exact benefits to the third party attachers, the
16 implementation of the pilot projects will provide data
17 that will enable third party attachers to provide better
18 estimates of their benefits. Consequently, it is
19 reasonable for Tampa Electric to proceed with the pilot
20 projects identified in its Plan.

21
22 **Q.** Does the company's Plan include reasonable written
23 Attachment Standards and Procedures addressing safety,
24 reliability, pole loading capacity, and engineering
25 standards and procedures for attachments by others to the

1 utility's electric transmission and distribution poles
2 that meet or exceed the current edition of the NESC that
3 is applicable pursuant to Rule 25-6.034, F.A.C.?
4

5 **A.** Yes. Tampa Electric's Plan includes Attachment Standards
6 and Procedures as required by Rule 25-6.0342.
7 Specifically, sections 8.1, 8.2, ^{8.2.2,} 8.4.1, 8.5, 8.7, and 8.8
8 of Document No. 1 of my Exhibit No. ____ (RBH-1) set out
9 the attachment standards and procedures for which Tampa
10 Electric seeks approval in this proceeding. The balance
11 of the standards included in the company's Plan is
12 provided for information and completeness.
13

14 **Q.** Based on the resolution of the preceding issues, should
15 the Commission find that the company's Plan meets the
16 desired objectives of enhancing reliability and reducing
17 restoration costs and outage times in a prudent,
18 practical, and cost-effective manner to the affected
19 parties?
20

21 **A.** Yes. Tampa Electric's Plan should result in less storm
22 damage to the electrical infrastructure and, therefore,
23 less restoration time and cost. More generally, Tampa
24 Electric's Plan, pole inspections, and increased
25 vegetation management activities, can be reasonably

1 expected to reduce future storm restoration costs
2 compared to what they would be without those initiatives.
3 Tampa Electric's continuing to build to Grade B
4 construction while undertaking specific pilot projects to
5 be constructed to NESC extreme wind provides a reasonable
6 measured approach to storm hardening. Hardening the
7 system, increasing pole inspections, enhancing line
8 clearing activities, hardening underground, along with
9 various pilot projects will all have an impact on
10 reducing storm damage, reducing or preventing outages,
11 and reducing the overall storm restoration times and
12 costs. Additionally, there will be day-to-day
13 reliability benefits realized. Finally, improved systems
14 and processes, including improved storm forensics, will
15 allow for more and better data to be collected, evaluated
16 and analyzed. It will take many years of sustained
17 effort to achieve the full benefits of storm hardening.

18
19 By utilizing its pilot project approach (targeting
20 specific critical infrastructure for extreme wind
21 loading), Tampa Electric is hardening its system
22 efficiently and economically. As a result Tampa
23 Electric's Plan is prudent, practical and is being
24 implemented in a cost-effective manner.

25

1 Q. Does this conclude your testimony?

2

3 A. Yes it does.

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1 BY MR. WILLIS:

2 Q Would you please summarize your testimony, Mr.
3 Haines?

4 A Yes, I would.

5 Good afternoon, Commissioners. Tampa Electric's
6 2007-2009 storm hardening plan filed on May 7th of this year is
7 an essential part of Tampa Electric's multi-prong approach to
8 enhance the reliability of its transmission and distribution
9 systems and to reduce restoration costs following a major storm
10 event.

11 Tampa Electric's plan contemplates continuing to
12 design and construct its system based on the National
13 Electrical Safety Code's Grade B criteria for all new
14 construction, relocations, and rebuilds of distribution
15 facilities as the company has done since the 1970s. Although
16 the National Electric Safety Code Grade C criteria is the
17 typical minimum guidelines used for most electrical systems in
18 the United States, building to Grade B criteria, which is
19 significantly stronger than Grade C, fits with the storm
20 profiles that have been experienced in Tampa Electric's service
21 area for the last 150 years. In fact, the National Oceanic
22 Atmospheric Administration, NOAA, coastal service center
23 records over that time period show that the maximum sustained
24 wind experienced in Tampa Electric's service territory was 115
25 miles per hour both in 1949 and 1960.

1 Construction based on Grade B criteria has an
2 affected wind speed of 116 miles per hour while construction
3 based on Grade C has an effective wind speed of only 86 miles
4 per hour. Moreover, the National Electrical Safety Code
5 extreme wind maps covering Tampa Electric's service territory
6 range from 100 miles per hour in the east to slightly over 120
7 miles per hour on our western edge.

8 In addition, Tampa Electric's plan proposes to
9 conduct several targeted pilot projects to evaluate the NESC
10 extreme wind criteria on circuits serving the Port of Tampa and
11 St. Joseph's Hospital, two critical facilities within the City
12 of Tampa. The effect of these upgrades will be evaluated after
13 any occurrence of an extreme weather event in Tampa Electric's
14 service area to determine if more widespread application of the
15 NESC extreme wind criteria would be cost-effective.

16 Additionally, Tampa Electric will underground
17 interstate overhead distribution crossings, introduce
18 enhancements to its underground system, and convert the
19 remaining 4 kV distribution circuits to today's 13 kV
20 standards. Another key component of Tampa Electric's plan is
21 its attachment standards and procedures. I believe these
22 provide the standards and procedures necessary to ensure that
23 proper third-party attachment notification has been given and
24 that every attachment made to a pole has been engineered to be
25 there, which is critical to the safety and reliability of the

1 electric system.

2 In summary, Tampa Electric's approach to continue to
3 build to construction Grade B, undertake specific pilot
4 projects to evaluate NESC extreme wind, and upgrade other key
5 components of the electric system provide a reasonable measured
6 multi-pronged approach to storm hardening the company's
7 transmission and distribution system. This approach should
8 bring about less storm damage to Tampa Electric's system, and
9 thus less restoration time and cost following a major storm
10 event. As a result, Tampa Electric's plan is prudent,
11 practical, and is being implemented in a cost-effective manner.

12 MR. WILLIS: I tender the witness.

13 COMMISSIONER CARTER: Cross.

14 MS. BROWNE: Yes, Mr. Chairman. My name is Maria
15 Browne and I have some questions on cross.

16 COMMISSIONER CARTER: You're recognized.

17 CROSS EXAMINATION

18 BY MS. BROWNE:

19 Q I am going to reserve most of my questions for
20 rebuttal where you have actually addressed these issues, in
21 many cases more thoroughly, and in the interest of any further
22 discussions between the parties over the course of tonight.

23 A Okay.

24 Q If you could turn to Pages 9 and 10 of your initial
25 testimony, Lines 16 to 7 -- starting at 16 on Page 9 and going

1 to 7 on Page 10. There you discuss TECO's plan to replace
2 sound poles built to Grade C construction with poles built to
3 Grade B.

4 A That's correct.

5 Q And can you confirm that TECO began Grade B
6 construction in the 1970s?

7 A We have documentation that states that the
8 construction standard adopted in the 1970 was the National
9 Electric Safety Code's Grade B.

10 Q And so poles were built to Grade C prior to that
11 time, correct?

12 A The documentation doesn't state what the standard was
13 prior to the move to Grade B.

14 Q It's your understanding, though, that there are poles
15 built to Grade C construction that exist in TECO's footprint?

16 A There are poles that, you know, would meet Grade C or
17 fail to meet Grade B, so it just depends on what the criteria
18 is you're looking at and what that threshold is.

19 Q Assuming that poles were built to Grade C
20 construction prior to being built to Grade B construction in
21 the 1970s then, they have been there for quite sometime, up to
22 35 years or so, correct?

23 A Based on those assumptions that would be correct,
24 yes.

25 Q And so poles that have been there for that long have

1 withstood extreme weather and hurricanes over that period,
2 correct?

3 A That would be correct, yes.

4 Q But you still plan to replace those poles if they are
5 not built to Grade B, correct?

6 A That's correct.

7 Q And building to Grade B, to confirm, is either
8 shortening existing spans or putting in a stronger class pole,
9 is that correct?

10 A There are several things you can do to improve the
11 strength of a pole. It could be guying, it could be relocating
12 facilities off of a heavily loaded pole to an adjacent pole
13 that might be more lightly loaded, it could be putting in a
14 stronger pole, mid-span pole. So there are several things you
15 can do.

16 Q And you're going to make the assessment about whether
17 a pole satisfies Grade B construction standards during the
18 ground line inspection, is that correct?

19 A It's on the same cycle as our pole inspection and
20 ground line, but it is a separate assessment. It's not done at
21 exactly the same time.

22 Q Will it be done at the same time as the load
23 analysis?

24 A That is the load analysis, yes.

25 Q Okay. And will it not then be done at the same time

1 as the assessment of whether a pole has deteriorated or not?

2 A Certain information is gathered at that time, but it
3 is a separate crew so to speak that would go out and do the
4 assessment of the loading.

5 Q Is it clear which will occur first?

6 A Typically, the ground line inspection would occur
7 first.

8 Q And so do you have a way to distinguish then when a
9 pole has been identified as being deteriorated versus
10 overloaded?

11 A Yes, we do.

12 Q And if the pole is overloaded and there is no permit
13 for the attaching entity, that attaching entity will be held
14 responsible for the cost of the pole replacement?

15 A That's correct.

16 Q Similarly, if the pole is at Grade C, and you put in
17 a Grade B pole, and there is an attacher on the pole that is
18 not permitted, you will hold that attacher responsible for the
19 cost of the pole replacement?

20 A Could you restate the question, please.

21 Q If the pole is currently built to Grade C and you're
22 going to replace it with a Grade B construction, and there's an
23 attacher on the pole that is not permitted, will you assess the
24 cost of that pole replacement to that attaching entity?

25 A If that attaching entity is causing the overload and

1 did not gain proper approval to be on the pole, then that
2 attaching entity could have some cost responsibility to
3 mitigate the overload condition.

4 Q I was actually talking about Grade C versus B, not
5 the overload.

6 A Well, if it's not meeting Grade B then we are
7 considering it doesn't meet today's construction standards so
8 it would be overloaded.

9 Q Okay. So you are equating those as the same. Can
10 you confirm that you would assess the entire cost of the pole
11 replacement, or is there some apportionment of costs that would
12 be required?

13 A For example, if all attachers that are on the pole
14 except for one are permitted to be on the pole, and there's one
15 attacher that is causing that pole to be overloaded that is not
16 permitted or did not gain approval to be on the pole, then that
17 last attacher would be responsible for mitigating the overload.
18 Like I said previously, it could be replacing the pole
19 worst-case, it could be a number of other things to relieve the
20 loading on the pole.

21 Q If you determined that the pole is deteriorated
22 during the ground inspection, TECO will be responsible for
23 replacing that pole?

24 A That is correct. If the pole is determined to be
25 deteriorated then we don't do even the loading analysis piece

1 of it, because the pole is going to be replaced.

2 Q And you are asserting that that is actually going to
3 occur before the loading analysis, correct?

4 A That's correct.

5 MS. BROWNE: I would like to introduce as an exhibit
6 TECO's responses to FCTA's interrogatories.

7 COMMISSIONER CARTER: Is that all of them or just
8 selected ones?

9 Staff, has this already been marked as an exhibit?

10 MS. FLEMING: No. This will be Exhibit Number 50.

11 COMMISSIONER CARTER: Exhibit Number 50.

12 MR. WILLIS: You have two documents here, which one
13 is Exhibit 50?

14 COMMISSIONER CARTER: What I'm marking as Exhibit
15 50 is the one entitled "Tampa Electric Company's Answer to
16 First Set of Interrogatories Numbers 1 through 30 of Florida
17 Cable Telecommunications Association, Inc." That's what I'm
18 showing.

19 Staff?

20 MS. FLEMING: I concur.

21 COMMISSIONER CARTER: Hold on one second here. Let's
22 make sure everyone gets a copy and is on the same page.

23 Commissioners, do you all have one? Okay. You're
24 recognized.

25 (Exhibit 50 marked for identification.)

1 BY MS. BROWNE:

2 Q Just to clarify, I'm going to reserve my questions
3 that concern the permitting, how you identify whether or not an
4 attachment is permitted for rebuttal.

5 A Okay.

6 Q If you will refer to TECO's response to Interrogatory
7 Number 9, FCTA's Interrogatory Number 9, you state there that
8 1,630 poles having joint use attachments annually will be
9 replaced, is that correct, as part of storm hardening?

10 A That's correct, in total.

11 Q Annually, though, right?

12 A Annually.

13 Q And approximately how much does it cost to replace a
14 pole with a Grade B construction pole?

15 A In the neighborhood of \$1,500 to \$2,000.

16 Q Is that material only or does that include labor?

17 A That's the total cost.

18 Q Does that include transfer costs?

19 A No, that does not include transfer costs.

20 Q If the pole is moved out of line by 15 feet, would
21 that significantly increase the cost to replace the pole?

22 A Tampa Electric's cost, not considering transfer
23 costs?

24 Q Maybe I should ask an interim question. If an
25 attaching entity is held responsible for the cost of the pole

1 replacement, will they also be responsible for the cost of
2 transferring Tampa Electric's facilities?

3 A If the pole would not be changed out for any reason
4 but what I would call an unauthorized attachment, somebody that
5 is attached to the pole that did not get approval to be there,
6 then that entity would be responsible for all the costs to
7 change that pole out.

8 Q So the full cost, on average, to replace a pole
9 including Tampa Electric's transfer costs is how much
10 approximately?

11 A That would be the 1,500 to 2,000. And it's the same
12 as if the -- you know, if the attaching entity would have
13 gained approval to begin with to attach to the pole, that's
14 what we would call make-ready costs to prepare the pole, you
15 know, to increase the capacity of the pole to accommodate the
16 attacher.

17 Q If the pole is moved out of line 15 feet,
18 approximately how much would that increase the cost?

19 A I really couldn't say without knowing the specifics,
20 what's on the pole, you know, and what has to be transferred
21 and that kind of thing.

22 Q But it could increase significantly, correct?

23 A It could increase. I don't know if I would say
24 significantly, but it could increase the cost.

25 MS. BROWNE: I have no further questions at this

1 time.

2 COMMISSIONER CARTER: Okay. Let's take a moment
3 here. Commissioners, at this point in time do any
4 Commissioners have any questions before we ask the other
5 parties if they have any questions?

6 Hearing none, we'll move to staff.

7 MS. FLEMING: Staff has no questions.

8 COMMISSIONER CARTER: Okay, then.

9 Mr. Willis.

10 MR. WILLIS: I have no redirect.

11 We would move the admission of Exhibit Number 8.

12 COMMISSIONER CARTER: You had an exhibit marked
13 Number 50.

14 MS. BROWNE: I would like to move that in.

15 COMMISSIONER CARTER: Any objection, staff? Any
16 objections by any of the parties? Show it done.

17 (Exhibit 8 and Exhibit 50 admitted.)

18 COMMISSIONER CARTER: Ms. Fleming.

19 MS. FLEMING: I believe the next witness listed here
20 is Slavin, which we noted earlier that Witness Slavin's
21 testimony and exhibits have been withdrawn, so the next witness
22 would be Witness Walker, is that correct?

23 MR. O'ROARK: Correct. And.

24 Mr. Chairman, Mr. Walker you will recall is Verizon's
25 witness who has been stipulated, and we would move admission of

1 the testimony again recalling that his testimony from Page 4,
2 Line 3 to Page 7, Line 18 has been withdrawn.

3 COMMISSIONER CARTER: Give me one second here so we
4 can all be on the same page here.

5 Staff, I am looking at the comprehensive exhibit list
6 and I am looking for --

7 MS. FLEMING: It's my understanding that Witness
8 Walker does not have any exhibits at this point, since he is a
9 stipulated witness just in the Progress docket. I believe the
10 Verizon attorney is asking to move in Witness Walker's prefiled
11 testimony just as it pertains to the Progress docket, to move
12 it into the record as though read.

13 COMMISSIONER CARTER: Any objections? Hearing none,
14 show it done.

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1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Sanford C. Walker. My business address is 1280 Cleveland
3 Street, Clearwater, Florida 33755.

4

5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am employed by Verizon Florida LLC ("Verizon") as a manager of
7 network engineering, with responsibility for Verizon's Florida coastal
8 area, which includes Manatee, Pasco, Pinellas and Sarasota counties.

9

10 **Q. PLEASE DESCRIBE YOUR EMPLOYMENT BACKGROUND.**

11 A. I have been employed by Verizon (and its predecessor, GTE) since
12 1994. I was initially hired as an outside plant engineer and have held
13 several positions with increasing responsibility since then, including
14 outside plant supervisor, customer operations specialist, senior staff
15 engineering consultant, section manager, staff consultant and my
16 current position as manager of network engineering.

17

18 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

19 A. I received a Bachelor of Science degree in electrical engineering from
20 the University of Florida in Gainesville in 1994.

21

22 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

23 A. The purpose of my testimony is to address the storm hardening plans
24 that have been filed by Progress Energy Florida, Inc. ("Progress"),
25 Tampa Electric Company ("TECO") and Florida Power & Light Company

1 ("FPL"). I will refer to these companies collectively as the "IOUs."

2

3 **Q. DOES VERIZON SUPPORT THE PROCESS ("PROCESS")**
4 **DESCRIBED IN EXHIBIT KS-1 TO THE TESTIMONY OF KIRK SMITH**
5 **FILED ON BEHALF OF AT&T FLORIDA?**

6 A. Yes. As described in Exhibit KS-1, the Process, among other things,
7 would require the IOUs to provide detailed information before the
8 engineering begins on a project identified in their storm-hardening plans;
9 provide engineering plans promptly upon completion; and meet with
10 Process participants before construction starts. Consistent with the
11 Commission's storm-hardening rules, the Process would permit
12 participants like Verizon to dispute the implementation of a particular
13 project based on the detailed information provided by the IOU.

14

15 **Q. WOULD THE ADOPTION OF THE PROCESS RESOLVE ALL THE**
16 **ISSUES IN THESE DOCKETS?**

17 A. No. Adoption of the Process will eliminate some issues, but, as I
18 discuss below, other issues remain that should be addressed by the
19 Commission.

20

21 **Q. DOES VERIZON OBJECT TO APPROVAL OF PROGRESS'S STORM**
22 **HARDENING PLAN?**

23 A. No. Verizon generally agrees with Progress's position on extreme wind
24 loading ("EWL") and does not object at this stage to the projects it
25 proposes to implement. Verizon reserves the right, however, to seek

1 dispute resolution concerning Progress's implementation of its plan.

2

3 **Q. DOES VERIZON OBJECT TO APPROVAL OF TECOS STORM**
4 **HARDENING PLAN?**

5 A. Yes. Verizon does not object to the specific projects TECO proposes to
6 implement, subject to Verizon's right to seek dispute resolution later if
7 necessary. Verizon requests that TECO's plan not be approved in its
8 current form, however, because it purports to impose pole attachment
9 terms and conditions on attachers, rather than following the parties'
10 existing joint use agreements.

11

12 **Q. PLEASE DESCRIBE THE TERMS AND CONDITIONS TO WHICH**
13 **YOU ARE REFERRING.**

14 A. TECO states that as part of its pole inspection process it will identify
15 poles that fail a preliminary stress test and then conduct a pole loading
16 analysis to determine if the pole is overloaded and if so which
17 attachment is causing the overload. Under sections 7.5.1 and 8.7 of
18 TECO's plan, if the party causing the overload is an attacher that did not
19 obtain a permit from TECO, it would be required either to remove the
20 attachment or pay for the required corrective action. Otherwise, TECO
21 would determine whether it or another party is responsible, and if
22 another party is to blame, that party would be required to bear the cost
23 of corrective action. In section 8.8 of its plan, TECO describes its pole
24 attachment audit program in which it checks for unauthorized
25 attachments and reserves the right to back bill the attachment owners,

1 assess fees and charge for a complete engineering study and for any
2 corrective action.

3
4 **Q. DOES VERIZON OBJECT TO TECO'S INSPECTION OF POLES AND**
5 **AUDITING OF POLE ATTACHMENTS?**

6 A. No. Verizon does not oppose pole inspections or attachment audits, but
7 when TECO finds that a pole is overloaded or believes an attachment is
8 unauthorized, the parties' responsibilities for addressing those situations
9 should be determined under their joint use agreements, not through
10 additional terms and conditions that TECO seeks to impose through its
11 storm hardening plan. Verizon will address the legal basis for this
12 position in its post-hearing brief.

13
14 **Q. TECO WITNESS HAINES STATES AT PAGE 9 OF HIS TESTIMONY**
15 **THAT TECO'S STORM HARDENING PLAN INCLUDES THE**
16 **REPLACEMENT OF POLES THAT MEET GRADE C**
17 **CONSTRUCTION CRITERIA BUT THAT FAIL GRADE B**
18 **REQUIREMENTS. DOES VERIZON HAVE ANY CONCERNS ABOUT**
19 **THIS ASPECT OF TECO'S PLAN?**

20 A. Yes. Verizon is concerned that TECO may attempt to claim that a
21 Verizon attachment, which was within the loading requirements for a
22 Grade C pole, is responsible for overloading the pole when Grade B
23 criteria are applied retroactively. The Commission should make clear
24 that it is not authorizing that cost-shifting technique.

25

1 **Q. DOES VERIZON OBJECT TO APPROVAL OF FPL'S STORM**
2 **HARDENING PLAN?**

3 A. Yes. Verizon disagrees with the extensive use of EWL that FPL
4 proposes in its plan for the reasons explained in the Direct Testimony of
5 Dr. Slavin that is being filed on Verizon's behalf. For the reasons given
6 in Dr. Slavin's testimony, to the extent EWL is applied at all, it should be
7 on a trial basis.

8
9 **Q. WOULD CERTAIN OF THE CRITICAL INFRASTRUCTURE**
10 **IMPROVEMENTS DESCRIBED IN FPL'S PLAN BE APPROPRIATE**
11 **FOR AN EWL PILOT PROJECT?**

12 A. Perhaps. Verizon would not object, for example, to the designation of
13 the three 2007 critical infrastructure projects in Verizon's service territory
14 that FPL has identified for 2007 for inclusion in such a pilot project.
15 Further, Verizon would not object to the inclusion of FPL's Targeted
16 Critical Pole Program in such a project.

17
18 **Q. SHOULD THE 2008 AND 2009 CRITICAL INFRASTRUCTURE**
19 **PROJECTS BE INCLUDED IN AN EWL PILOT PROJECT?**

20 A. They should not be included at this time. In the first place, it is not clear
21 whether those projects will be considered part of FPL's plan, since they
22 only recently were identified. Moreover, FPL has provided only
23 extremely high level information about these projects so that it is
24 impossible to assess whether they should be included in a pilot project.

25 The best approach would be for FPL, if it wishes to include these

1 projects in an EWL pilot project, to petition to modify its plan once it can
2 describe what the projects would involve and at least roughly how much
3 they would cost. FPL's request then could be evaluated based on the
4 data FPL provides and responses from other parties.

5

6 **Q. SHOULD INCREMENTAL HARDENING PROJECTS IN VERIZON'S**
7 **SERVICE TERRITORY BE INCLUDED IN A PILOT PROJECT?**

8 A. No. My understanding is that Verizon has not received any information
9 concerning any incremental hardening projects in its service territory.
10 There is therefore no basis for including any such projects in a pilot
11 project.

12

13 **Q. SHOULD FPL'S PROPOSAL TO MODIFY ITS DESIGN GUIDELINES**
14 **AND PROCESSES TO APPLY EWL FOR NEW CONSTRUCTION,**
15 **MAJOR PLANNED WORK, RELOCATION PROJECTS AND DAILY**
16 **WORK ACTIVITIES BE APPROVED?**

17 A. No. For the reasons discussed by Dr. Slavin, the ongoing application of
18 EWL to FPL's distribution poles should not be approved.

19

20 **Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

21 A. Yes.

22

23

24

25

1 COMMISSIONER CARTER: Next.

2 MS. FLEMING: The next witness is Witness Smith from
3 AT&T. He was a previously stipulated witness, but we do have
4 the testimony and exhibits to move into the record for this
5 witness.

6 COMMISSIONER CARTER: And that would be --

7 MS. FLEMING: Exhibit Number 27.

8 COMMISSIONER CARTER: Any objections? Hearing none,
9 show it done.

10 (Exhibit 27 marked for identification and admitted
11 into the record.)

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1 Bellsouth Telecommunications, Inc.
2 d/b/a AT&T Florida and TCG South Florida, Inc.

3
4 DIRECT TESTIMONY OF KIRK SMITH

5
6 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

7
8 DOCKET NO. 070297-EI

9
10 SEPTEMBER 7, 2007

11
12 Q. PLEASE STATE YOUR NAME, YOUR POSITION WITH BELLSOUTH
13 TELECOMMUNICATIONS, INC. d/b/a AT&T FLORIDA ("AT&T FLORIDA"
14 OR THE "COMPANY"), AND YOUR BUSINESS ADDRESS.

15
16 A. My name is Kirk Smith. I am employed by the Company as Supervising Manager –
17 Network Staff Support on the Network Operations Construction and Engineering
18 Staff for the Company's nine-state Southeast region. My business address is 3535
19 Colonnade Parkway, Rm. W3D, Birmingham, Alabama 35243.

20
21 Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR BACKGROUND AND
22 EXPERIENCE.

23
24 A. I graduated from Auburn University in 1973 with a Bachelor of Science degree in
25 Industrial Engineering. I became employed by the Company in June 1973. I have
26 held various line and staff positions with the Company, including positions in
27 Construction, Engineering, Installation, Maintenance, Mechanization (Deployments
28 and Support) and Contract Administration (Outside Plant Construction, Facility
29 Locates, Engineering and Joint Use). I managed Regional Emergency Generator

1 Pools that deploy emergency generators in large scale power outages throughout the
2 Company's nine-state southeast region. I provided support in my capacity as
3 Manager–Network Operations Support for the Company to its Regional Emergency
4 Control Center and have field experience in storm restoration, including hurricanes,
5 ice storms and tornadoes. I assumed my current position as Supervising Manager –
6 Network Staff Support on the Network Operations Construction and Engineering
7 Staff in October 2002, and my current responsibilities include supervising a team of
8 managers responsible for bidding and negotiating contracts for Outside Plant
9 Construction, Facility Locating, Engineering, and Joint Use. The team is also
10 responsible for administration of CATV license agreements, agreements for CLECs
11 pertaining to pole attachments and conduit occupancy, and agreements for
12 attachments to towers on some central offices. I participated at the various
13 workshops held in this matter. I also participated in Docket No. 060077-TL
14 regarding the mandated pole inspection cycle, and Dockets Nos. 060172-EU and
15 060173-EU regarding storm hardening activities of investor-owned, rural
16 cooperative and municipal electric utilities.

17
18 Q. HAVE YOU ATTACHED ANY EXHIBITS TO YOUR TESTIMONY?

19 A. Yes, I have attached Exhibit KS-1 to my testimony.
20
21
22
23

1 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

2

3 A. The purpose of my testimony is to explain AT&T Florida's and TCG South Florida,
4 Inc.'s ("TCG") positions on the 2007 – 2009 storm hardening plan (the "Plan") filed
5 by Tampa Electric Company ("TECO") on May 7, 2007.

6

7 Q. PLEASE PROVIDE AN OVERVIEW OF AT&T FLORIDA'S AND TCG'S
8 POSITIONS REGARDING TECO'S PLAN.

9

10 A. As a result of cooperative, good faith negotiations, AT&T Florida, TCG and TECO
11 have reached an agreement wherein AT&T Florida, TCG and TECO have
12 committed that they will support the jointly developed terms and conditions
13 contained in the Process to Engage Third-Party Attachers (the "Third-Party Attacher
14 Process"), a copy of which is attached as Exhibit KS-1. It is my understanding that
15 Florida Power & Light Company, Gulf Power Company, Progress Energy Florida,
16 Inc., Verizon, Embarq and the Florida Cable Telecommunications Association have
17 also agreed to the Third-Party Attacher Process.

18

19 In addition, based on our review of the project details that TECO has included in its
20 Plan and with the agreement between the parties to support the Third-Party Attacher
21 Process, AT&T Florida and TCG have no objection to TECO's Plan at this time.

22

1 AT&T Florida and TCG submit this testimony to explain the Third Party Attacher
2 Process and its value.

3

4 Q. PLEASE EXPLAIN THE PURPOSE OF THE THIRD-PARTY ATTACHER
5 PROCESS.

6

7 A. AT&T Florida and TCG appreciate the Commission's interest in minimizing
8 widespread power outages in the state following hurricanes or other extreme
9 adverse weather conditions. As Rule 25-6.0342 of the Florida Administrative Code
10 (the "Rule") provides, however, the investor-owned utilities have a responsibility to
11 develop storm hardening plans that meet the desired objectives of enhancing
12 reliability and reducing restoration costs and outage times in a manner that is
13 prudent, practical and cost-effective to the affected parties. AT&T Florida's and
14 TCG's primary concerns are that they (1) have sufficient time to review TECO's
15 detailed deployment plans, (2) have the opportunity to provide meaningful input to
16 TECO as contemplated by the Rule, (3) have enough details about the proposed
17 work so that AT&T Florida and TCG can ascertain its projected costs, if any, and
18 perform the cost-benefit analysis contemplated by the Rule, and (4) have sufficient
19 time to communicate concerns, if any, to the Commission through the complaint
20 process referenced in the Rule. The Third-Party Attacher Process alleviates these
21 concerns by establishing a reasonable timetable for the exchange of information
22 between the electric utility and the third-party attachers. The Third-Party Attacher
23 Process is a critical tool for ensuring that an electric utility is hardening its

1 infrastructure in a way that is prudent, practical and cost-effective to affected parties
2 as required by the Rule.

3
4 Q. PLEASE EXPLAIN FURTHER WHY AT&T FLORIDA AND TCG VIEW THE
5 THIRD PARTY ATTACHER PROCESS AS CRITICAL TO COST-EFFECTIVE
6 STORM HARDENING.

7
8 In order to perform a meaningful cost-benefit analysis of a particular storm
9 hardening project, AT&T Florida and TCG need to know which poles will be
10 affected, as well as the type of work the electric utility plans to perform. For
11 example, AT&T Florida and TCG need to know whether the electric utility will
12 replace poles, change from wood poles to poles of another material such as concrete
13 or steel, place poles in locations different from the existing poles, or relocate or
14 underground existing aerial facilities. Once AT&T Florida and TCG have this level
15 of detail, they can evaluate how their facilities will be impacted, what work they
16 would need to perform, and if there are potentially more cost-effective ways to
17 harden the infrastructure in question.

18
19 I understand that it is may not be feasible for electric utilities to develop this level of
20 detail years, or sometimes even many months, in advance of a storm hardening
21 project due to changes in field conditions, changes in service needs, and even
22 changes in internal budgets. Without this level of detail, however, AT&T Florida
23 and TCG cannot perform a meaningful cost benefit analysis of a proposed project as

1 required by the Rule. Even for proposed projects that TECO has provided a higher
2 level of detail for, engineering plans can change as you get closer in time to the start
3 of the project for the reasons I previously mentioned.

4
5 The Third-Party Attacher Process is a way to address this engineering reality. It
6 ensures that the electric utility engages third-party attachers during the design phase
7 of a project and that the dialogue continues through the construction phase. Under
8 the Third-Party Attacher Process, AT&T Florida and TCG will have sufficient time
9 to review the electric utility's proposed engineering plans, determine how their
10 facilities will be affected and provide input on potentially more cost-effective ways
11 to achieve the storm hardening goals. In the end, if the parties cannot overcome a
12 disagreement, AT&T Florida and TCG will also have sufficient time to file a
13 complaint with the Commission pursuant to the Rule.

14
15 As an added benefit, the Third-Party Attacher Process opens the lines of
16 communication between the parties which will likely result in a better overall
17 working relationship, even beyond the storm hardening context.

18
19 Q. HOW WILL THE THIRD-PARTY ATTACHER PROCESS WORK?

20
21 A. By September 5 of each year, TECO will provide the third-party attachers with a list
22 of projects identified in its 3-year plan that TECO plans to undertake in the
23 following calendar year, pending internal budget approval. TECO will update this

1 list and provide it to the third-party attachers once it receives final budget approval
2 for the proposed projects.

3
4 Prior to engineering a job relative to a storm hardening project identified in its Plan,
5 TECO will initiate a meeting with third-party attachers to discuss TECO's
6 preliminary ideas for the scope of the work. At this pre-design meeting, TECO will
7 (a) identify the poles involved; (b) identify whether it plans to replace poles, change
8 from wood poles to poles of another material, place poles in different locations than
9 the existing poles, relocate overhead facilities or underground existing aerial
10 facilities; (c) provide the projected commencement date; and (d) provide other
11 available information that would enable the third-party attachers to make necessary
12 preparations and evaluate whether to seek dispute resolution before the
13 Commission. During this pre-design phase, TECO will also seek input from the
14 third-party attachers as required by the Rule. Once TECO finalizes its engineering
15 plans, it will promptly provide them to the third-party attachers. TECO will also
16 initiate a meeting with third-party attachers prior to construction to discuss
17 coordination of work and a construction schedule.

18
19 If TECO wants to amend its Plan, for example, to add a storm hardening project not
20 previously identified in its Plan, TECO can file a petition with the Commission
21 pursuant to the Rule.

22

1 Again, it is my opinion that implementation of the Third-Party Attacher Process
2 gives the electric utilities the flexibility to finalize some of their engineering plans
3 closer in time to construction, while giving the attaching entities sufficient time to
4 evaluate specific storm hardening projects, provide input on them, perform a
5 meaningful cost benefit analysis, and bring concerns before the Commission if
6 necessary.

7

8 Q. Does this conclude your direct testimony?

9

10 A. Yes.

11

1 COMMISSIONER CARTER: Next.

2 MS. FLEMING: The next witness I have is FCTA Witness
3 Harrelson.

4 MR. SEIVER: Mr. Chairman, yes, Mr. Harrelson is the
5 next witness. And the way I understood the procedure would be
6 is Mr. Harrelson would testify even though he has testimony in
7 three of the four dockets, he would do one docket at a time, be
8 cross-examined and redirect before we moved on to his direct
9 testimony in the next docket.

10 And if Your Honor, Mr. Chairman please, we could
11 begin with his first docket, which I guess is the Tampa
12 Electric docket, if that's the preference.

13 COMMISSIONER CARTER: Any objection by any of the
14 parties? Staff. That makes so much sense. Let's do it. That
15 would be logical, let's do that.

16 MICHAEL T. HARRELSON
17 was called as a witness on behalf of Florida Cable
18 Telecommunications Association, and having been duly sworn,
19 testified as follows:

20 DIRECT EXAMINATION

21 BY MR. SEIVER:

22 Q Would you please state your name for the record,
23 please?

24 A My name is Michael Truett Harrelson. My nickname is
25 Mickey.

1 Q Mr. Harrelson, were you here today when the witnesses
2 were sworn in?

3 A I was, yes.

4 Q And, Mr. Harrelson, did you cause to be filed
5 testimony in the Docket 00 -- I'm sorry, 0702997-EI (sic)
6 concerning the storm hardening plan of Tampa Electric Company,
7 testimony on behalf of the Florida Cable Telecommunications
8 Association?

9 A Yes, I did.

10 Q And did you have any additions or corrections to that
11 testimony?

12 A None.

13 Q And if I asked you the questions in that testimony
14 today, would your answers be the same?

15 A Yes.

16 Q And did you also have some exhibits attached to that
17 testimony?

18 A I believe there were, yes.

19 Q Would you please identify those exhibits?

20 A I'm not certain about the numbers, but in this copy
21 it's MTH-1. Should I refer to it by a different number? I'm
22 not sure.

23 MR. SEIVER: Mr. Chairman, that's Exhibit Number 28.

24 Q And is that the curriculum vitae, Mr. Harrelson?

25 A It is, and it includes a list of testimonies.

1 Q And, Mr. Harrelson, would you look at MTH-2, which is
2 on the master exhibit list Number 29, and tell us what that is?

3 A That is a copy of an affidavit by Doctor Larry
4 Slavin.

5 Q And then hearing identification Exhibit Number 30,
6 which is MTH-3, would you please explain what that exhibit is?

7 A That's a copy of the process to engage third-party
8 attachers.

9 Q And these are the only three exhibits that you have
10 attached to your testimony in the Tampa Electric docket, is
11 that right?

12 A That's correct.

13 MR. SEIVER: At this time I would like to move into
14 the record the direct testimony -- I'm sorry. Mr. Chairman, at
15 this time I would like to move into the record the prefiled
16 direct testimony of Mr. Harrelson.

17 COMMISSIONER CARTER: The prefiled testimony of Mr.
18 Harrelson will be entered into the record as though read.

19

20

21 (REPORTER NOTE: Direct Testimony of Michael
22 subsequently withdrawn in Docket 070297-EI. Transcript
23 continues with Page 282.)

24

25

1 BY MR. SEIVER:

2 Q Mr. Harrelson, could you please give a summary of
3 your testimony.

4 A Yes. Tampa Electric has stated that its experience
5 shows that there is no substantial evidence that building
6 distribution structures to extreme wind construction grades
7 will prevent damage from falling trees, tree limbs, flying
8 debris during major storm events. In my opinion, Grade B
9 construction, which Tampa Electric proposes to continue to
10 build to, is more than adequate to strengthen distribution
11 poles against the effects of extreme winds in the service
12 territory of Tampa Electric.

13 Compliance with the applicable grade of Grade C for
14 poles 60 feet or less will meet the Commission's objectives as
15 long as other initiatives such as vegetation management,
16 increased guying, replacing rotten poles are implemented.
17 However, TECO since the early '70s has used Grade B
18 construction, and the majority of its plant is already built to
19 Grade B. Accordingly, TECO estimates the increased incremental
20 cost to building to Grade B to be zero. We feel that the
21 incremental cost of building to Grade B, including changing out
22 some of the sound Grade C poles, will be greater than zero.

23 The three-year pilot project program we agree is
24 prudent, practical, cost-effective, and especially the practice
25 of storm hardening the interstate crossings. All four of the

1 IOUs have identified that as an area worthwhile to either
2 harden to extreme wind standards or place underground as TECO
3 intends to do, and we agree that's worthwhile. On transition
4 to its Grade B standard, I don't believe that its plans for
5 deploying Grade B are prudent, practical, and cost-effective
6 because I do not agree that all of their poles are now
7 presently at Grade B.

8 TECO's plan relies heavily on its maintenance
9 programs, including its ground line inspection program, by
10 which it intends to identify poles that need to be replaced.
11 This inspection program was required in another docket, but the
12 criteria is identified in this docket. TECO plans to implement
13 the use of a pole strength evaluating program called Pole
14 Foreman. I am concerned that Pole Foreman may not take into
15 account all of the relevant criteria for assessing the true
16 strength of poles and its ability to withstand wind and
17 loading. For example, I don't believe that Pole Foreman takes
18 into account the guying effect of lateral lines on poles
19 without special application procedures.

20 Considering the pole loading calculations with
21 computer software as opposed to the engineering guidelines,
22 tables, and charts that have served very well for electric
23 utility designers is new to TECO and many others. I believe
24 extra caution should be used to be certain that beneficial as
25 well as the detrimental loading effects on poles should be

1 included in these sophisticated calculations.

2 I have concerns about TECO's inspection process to
3 determine the loading effects of third-party attachments on the
4 poles. First, TECO intends to perform a loading analysis on
5 joint use poles. A loading analysis shall not be performed on
6 poles with only TECO assets. This approach is discriminatory.
7 Electric facilities are known to overload poles as well as
8 poles with electric facilities and third-party attachments.

9 Second, TECO intends to assess responsibility for
10 overloading in a discriminatory and arbitrary manner. TECO
11 states that it will presume that the electric company was the
12 first entity on the pole. It is always assumed that the
13 company was the first attacher. It will then attempt to assess
14 responsibility for overloading on the last party to attach to
15 the pole, which it presumes to be the third-party attacher. In
16 my experience the power company owner is often the last one to
17 put an additional attachment on a pole, such as a transformer,
18 service to a new customer, a streetlight, or things of that
19 nature.

20 Third, TECO intends to assess responsibility for
21 overloading on any party that cannot produce an approved paper
22 copy of a permit. TECO has asserted that it has not maintained
23 adequate records of pole attachments, accordingly it will look
24 to third-party attachers to prove that they are authorized to
25 be on the pole. If they cannot produce evidence that they are

1 authorized in the form of an approved application, they will be
2 held responsible for any noncompliance and will be responsible
3 to pay for the make-ready that will bring the pole back into
4 compliance.

5 That's my summary.

6 MR. SEIVER: Thank you, Mr. Harrelson.

7 Mr. Chairman, we tender him for cross.

8 COMMISSIONER CARTER: Mr. Willis, you're recognized.

9 CROSS EXAMINATION

10 BY MR. WILLIS:

11 Q Good after, Mr. Harrelson.

12 A Good afternoon.

13 Q I take it that in performing loading analysis up to
14 this point you have just used engineering guidelines and hand
15 calculation methods, which are essentially rules of thumb, is
16 that correct?

17 A I have used those more than using the computer-based
18 analysis program, but I have used one computer-based program in
19 the past, yes.

20 Q You haven't used Pole Foreman to conduct load
21 analysis, though, have you?

22 A I have not actually used Pole Foreman. I have only
23 had a 30 or 45-minute discussion with Mr. Malcolm Young
24 (phonetic), who markets and, I believe, developed Pole Foreman.

25 Q Mr. Harrelson, do you agree that the purpose of this

1 docket is to determine whether the storm hardening plan of
2 Tampa Electric meets the objectives of enhancing the
3 reliability of electric transmission and distribution service?

4 A I do; and it should be in a prudent, practical, and
5 cost-effective manner, yes.

6 Q Okay. Well, let's look at the first objective first
7 of enhancing the reliability of electric transmission and
8 distribution service. Will you agree that construction Grade B
9 poles are stronger than construction Grade C poles?

10 A I generally agree with that. The strength can be
11 achieved by storm guying and other methods other than simply
12 stronger poles, but the overall line construction is stronger,
13 yes.

14 Q How much stronger is a construction B pole than a
15 construction C pole in equivalent wind strength?

16 A Equivalent wind strength is a comparison that has to
17 go through several assumptions. The National Electrical Safety
18 Code requires that Grade C have nine pounds per square foot of
19 wind pressure applied to the pole and the lines and the
20 equipment. Grade B also requires the exact same wind pressure.
21 The National Electric Safety Code then applies different
22 strength and loading factors to Grade B, to Grade C, and Grade
23 C actually has a subgrade of Grade C at crossings.

24 So equivalent wind speed can be computed, but it must
25 be done based on whether you're applying those factors to the

1 force of wind, to the force of conductors on the pole, to the
2 effect of wind on the pole itself. So a general answer is the
3 best that can be calculated on that. Specific answers depend
4 on the exact loading of each individual pole.

5 Q Will you refer to your testimony on Page 11 at Line
6 3?

7 A Okay. Thank you.

8 Q Could you please read the sentence that begins at the
9 end of Line 3 through the beginning of Line 6?

10 A The sentence is Grade B design results in an
11 equivalent -- Grade B design results in an equivalent wind
12 strength of approximately 116 miles an hour, and thus stronger
13 than Grade C design which results in an equivalent wind
14 strength of approximately 86 miles per hour.

15 Q Do you agree that Tampa Electric's distribution
16 facilities already meet and in most cases exceed the minimum
17 requirements of NESC?

18 A Yes, sir, I do.

19 Q Do you agree that continuing to build to construction
20 Grade B will produce a system with the equivalent wind strength
21 that a system -- with a greater equivalent wind strength than a
22 system built to construction Grade C?

23 MR. SEIVER: I'm sorry, I object. Could you clarify
24 that.

25 COMMISSIONER CARTER: Yes. Make it a little clearer

1 so we can all understand the question.

2 MR. WILLIS: All right.

3 BY MR. WILLIS:

4 Q Would you agree that continuing to build to
5 construction Grade B in Tampa Electric's system will produce a
6 system with a greater equivalent wind strength than a system
7 built to construction Grade C?

8 A I do.

9 Q Will you agree that building to construction Grade B
10 will enhance the reliability of Tampa Electric's system?

11 A I agree that it will under most circumstances. There
12 are circumstances where I think it will be for the most part
13 irrelevant.

14 Q Now, you have contended that some of TECO's system is
15 not presently built to construction Grade B standards, correct?

16 A That's correct.

17 Q If that's correct, then upgrading the portion of the
18 system that is not built to construction Grade B will provide a
19 greater equivalent wind strength of poles on Tampa Electric's
20 system, won't it?

21 A Under certain circumstances. And if I can clarify,
22 in areas which there are many of in Tampa where there are trees
23 and buildings as tall as and near the line, then the
24 performance of Grade B poles I do not think will be
25 significantly superior to Grade C poles. Those trees shelter

1 the lines from the effect of the wind. Up until the point when
2 the trees start to break off limbs, the trees start to fall
3 over, and when the trees come down they would take down a Grade
4 B line or a C Line almost the same.

5 Q Would you agree that failing to replace a
6 construction Grade C pole with a construction Grade B pole as
7 those poles are discovered will delay the complete conversion
8 of Tampa Electric's system to a construction Grade B?

9 A No, I don't. I think it's a matter of priorities.
10 If you go through and replace sound solid Grade C poles during
11 an eight-year cycle that means that it is still six or seven
12 years before you get around to replacing the deteriorated poles
13 that do not meet Grade C. And there are a significant number
14 of those, according to your reliability reports, that don't
15 meet the strength requirements. So I suggest prioritizing the
16 expenditures, replace the rotten poles first, come back on the
17 second pass, replace the solid sound Grade C poles, which many
18 of them have been there for 50 or 60 years.

19 Q Well, if a pole of 60 feet or less is constructed to
20 construction Grade B, wouldn't it be more reliable against
21 flying debris than a Class C pole?

22 A Up to a certain point I believe it would be if that
23 small debris would not break both poles. If the debris is
24 large enough it will break a B or a C or an extreme wind for
25 that matter.

1 Q But there are circumstances where a B will survive
2 better than a C, correct?

3 A I agree. I believe there is a window there where it
4 would.

5 Q Now, let's look at the second prong of the test, that
6 is the prudent and cost-effective manner of enhancing the
7 reliability of the electric transmission and distribution
8 service. You have agreed, have you not, that based on Tampa
9 Electric's historic use of construction Grade B, that
10 continuing to build to construction Grade B standards with only
11 limited pilot projects for extreme wind loading is a prudent,
12 practical, and cost-effective approach?

13 A Yes.

14 Q You contend that Tampa Electric's plan is not prudent
15 because it plans to replace poles that meet construction Grade
16 C, but not construction Grade B, correct?

17 A I believe that aspect of it would be better adjusted
18 and more prudent to change out the deteriorated poles first,
19 wait until a later date to change out the solid poles that meet
20 Grade C criteria, that's correct.

21 Q Well, what is the life of a typical wooden pole?

22 A It is like a typical engineer; it varies a lot. Some
23 poles really are as solid as the day they were put into the
24 ground and they were put in in the '20s and the '30s. But, I
25 don't know what the average is. I do know that some of the

1 poles put in in the '60s and '70s have already been replaced,
2 and there are poles out there that were installed in the '30s.

3 Q Mr. Harrelson, you agree that the NESC requires
4 construction Grade B for distribution poles crossing limited
5 access highways, railroad tracks, and navigable waterways?

6 A Yes, I do.

7 Q Isn't the rationale for requiring construction Grade
8 B for limited access highways, railroad tracks, and navigable
9 waterways is that stronger poles are less likely to cause a
10 failure to the pole that would interfere with transportation?

11 A I think that is true, and it's not simply focused on
12 poles. A lot of crossings are made strong by the storm guying
13 technique. In general, if everything is considered equal, the
14 stronger construction is more resilient and more resistant to
15 storm events. What the code does is specifies strength and
16 conditions. When one exceeds the code and chooses to for its
17 purposes other than safety, say for instance reliability, if
18 you choose to exceed the code for those purposes, reliability,
19 you are not bound then by the other terms in the code that, for
20 instance, say don't consider where there is a big tree hanging
21 over it.

22 If the code requires Grade C and you choose to use
23 Grade B, then you are also at liberty to look up and see if
24 there is a big tree that will fall and crush that Grade B pole,
25 and you can say, wait, I'll put that Grade B pole in an open

1 area where the wind is going to effect it as opposed to putting
2 it in a forest where it will be sheltered by the trees until if
3 the trees come down they break the Grade B pole. So if you are
4 going to exceed the code, you are at liberty to put in a few
5 other common sense guidelines that are not specified in the
6 code for the places where the code does mandate Grade B.

7 Q If outages are reduced and restoration times are
8 improved following a major storm event, would you agree that
9 all parties would benefit?

10 A I do agree that if that happens all parties benefit,
11 and the only qualifier I would add is just let's make it
12 cost-effective, prudent, and practical.

13 Q You would agree that Tampa Electric's approach to
14 continue to build to construction Grade B for new construction
15 of major planned work, expansion and rebuilds and relocations
16 of its overhead system is prudent, practical, and
17 cost-effective, do you not?

18 A I do. And the only qualifier I would put on that is
19 as many years as I have been involved in this, I have always
20 believed that the lines that are attached to the pole, the
21 additional guying effects are part of the consideration of the
22 strength of that pole. And I'm simply wanting to, I guess,
23 request that TECO take that into consideration and just be sure
24 Pole Foreman does do that.

25 Q Now, let's talk a minute about the level of detail

1 that Tampa Electric has provided to the CATV providers in FCTA.
2 You contend on Page 18, Line 6, that Tampa Electric's plan does
3 not include specific technical design specifications,
4 construction standards, and construction methodologies that
5 will be employed in hardened poles. Would you agree that Tampa
6 Electric has worked in good faith to provide information to
7 attachers?

8 A I agree. And, in addition, that process to engage
9 third-party attachers, I believe, will ultimately provide that
10 information. But we can't tell what the costs are for
11 transferring until we know which poles you will be doing work
12 on or which poles you will be requiring us to do work on. And
13 until that process has a chance to work, you don't yet know, so
14 you can't yet tell us.

15 Q Well, you will agree that Tampa Electric did hold
16 meetings with attachers to discuss its pilot projects, did it
17 not?

18 A Yes.

19 Q And maps were provided of the effective routes to the
20 attachers, were they not?

21 A That's correct.

22 Q And offers to ride each effective circuit were made
23 to each of the attachers, wasn't it?

24 A Yes, it was.

25 Q And did you take advantage of that offer?

1 A Yes, we did to our satisfaction. We didn't actually
2 ride, but the gentleman who showed us all the plans offered to
3 ride. He had a meeting for the second half of the day, we were
4 perfectly comfortable in following that map on our own.

5 Q Okay.

6 A I might add, the maps and the routes show a few miles
7 of line. They do not yet state any of the work that will be
8 done on any of the individual poles. That will have to be
9 developed later when those jobs are actually engineered.

10 Q And that will be taken care of in the process within
11 the process which has been approved here, correct?

12 A That's correct.

13 Q On Page 23 of your testimony, you state that
14 7.7 percent, or 1,359 of 17,700 poles inspected by Tampa
15 Electric failed construction Grade B, is that right?

16 A That's correct.

17 Q And that number was derived, wasn't it, from Tampa
18 Electric's 2006 inspection report which shows that reference?

19 A Yes.

20 Q Are you familiar with the company's current failure
21 rate stated in response to FCTA's Request for Production of
22 Documents Number 7?

23 A I can't quote it. I don't remember if I have seen
24 it. I believe I have seen it, but I don't remember.

25 Q I have provided the witness a copy of that discovery

1 response of Tampa Electric. I'd like to ask you, Mr.
2 Harrelson, isn't the historic rate of poles failing loading
3 analysis two percent shown in that report?

4 A That is what this answer reflects, yes.

5 Q And that's after some 55,000 poles have been
6 inspected, correct?

7 A I'm looking at 38,000.

8 Q Okay. Well, as the company has had additional
9 experience the pole failure rate has gone down, correct?

10 A I'm sorry, I just don't follow you.

11 Q I'll withdraw that; I think it is obvious.

12 MR. SEIVER: I object to that. I wanted to know what
13 was put in that was said to be obvious.

14 MR. WILLIS: Well, the historic rate of poles failing
15 is two percent after at least 38,000 poles have been inspected,
16 whereas Mr. Harrelson's reference was a failure rate of
17 7.8 percent after only 17,000 poles had been inspected.

18 MR. SEIVER: I'm not sure we can draw any conclusions
19 from that, but now I understand his point.

20 COMMISSIONER CARTER: Mr. Willis, what you are
21 referring to, is that part of the record? You just pulled out
22 a page from the record, is that --

23 MR. WILLIS: I don't believe it is in the record.
24 I'll provide it.

25 COMMISSIONER CARTER: I think that is probably where

1 we are, we're trying to figure out -- you know, that would
2 probably be more helpful and save some objections on that if we
3 can all see what we are talking about at the same time.

4 Before we go further, staff, this looks like a
5 response to an interrogatory. Can you place this?

6 MS. FLEMING: Looking at this, this is not part of
7 the staff's stipulated exhibit, so it is not part of the record
8 unless Mr. Willis is intending to identify it as a hearing
9 exhibit.

10 COMMISSIONER CARTER: So we will need to give this a
11 separate number, then. This will be Number 51?

12 MS. FLEMING: Yes, that's correct, Commissioner.

13 COMMISSIONER CARTER: And give us a title, Mr.
14 Willis.

15 MR. WILLIS: Tampa Electric's Response to FCTA's
16 First Request for Production of Documents Number 7.

17 (Exhibit Number 51 marked for identification.)

18 COMMISSIONER CARTER: Hold on one second. Okay.

19 Witness, have you had an opportunity to look this
20 over yet?

21 THE WITNESS: Yes.

22 COMMISSIONER CARTER: Okay. Mr. Seiver.

23 MR. SEIVER: I guess I need Mr. Willis to clarify, or
24 maybe the witness can clarify. I see a percentage for poles
25 failing, loading poles 4.5 percent failing, structural

1 analysis, poles replaced annually, which is another number
2 which I think are those first two added. I don't know if he's
3 comparing one percentage to only one or the combined
4 percentage. That's why I was kind of confused about what we
5 are comparing.

6 MR. WILLIS: Well, I asked the witness if the
7 historic rate of poles failing the loading is shown to be 2
8 percent on this report, this response. It is clear what I
9 asked him about.

10 MR. SEIVER: I guess maybe I missed. And the
11 percentage of failing loading was based on a fewer number of
12 poles earlier, is that it?

13 MR. WILLIS: Mr. Harrelson in his testimony has a
14 7.8 percent number, and I was comparing that with what was
15 later information.

16 MR. SEIVER: Well, I think the record will speak for
17 itself.

18 Mr. Chairman, I will withdraw my objection to the
19 question.

20 COMMISSIONER CARTER: Okay.

21 BY MR. WILLIS:

22 Q Mr. Harrelson, on Page 29 of your testimony, you
23 refer to the 2001 audit, isn't that correct?

24 A What line, please?

25 Q It was Page 29, Line 1.

1 A Okay. Yes.

2 Q Are you familiar with Tampa Electric's pole
3 attachment audit conducted in 2001?

4 A I'm somewhat familiar with it, not any particular
5 level of detail. I've discussed it with one individual.

6 Q Do you agree that that audit showed that 20 percent
7 of third-party attachments on Tampa Electric's system were
8 unauthorized and unnoticed?

9 A I think, yes, that determination was made by TECO.

10 Q And you also note on Page 29, Line 3, that CATV
11 operators paid a significant lump sum to cover back rent for
12 attachments that were not authorized, correct?

13 A That's correct for attachments that were claimed that
14 they were not authorized.

15 Q Do you know if any make-ready costs were paid to
16 ensure that the poles met code and company construction
17 standards as a result of that audit?

18 A I'm not certain. I don't think there were any
19 make-ready costs assessed.

20 Q On Page 31, Line 2, you state that Tampa Electric's
21 joint pole attachment audit is really just a billing audit, is
22 that correct?

23 A Yes.

24 Q Now, were you referring to the company's audit that
25 is being undertaken as a result of the Commission's order in a

1 previous docket?

2 A That was my understanding, yes.

3 Q Mr. Harrelson, I want to show you an excerpt of Order
4 Number 06-0351, and ask you a question about that, please, sir.

5 Mr. Harrelson, I want to refer you to the last
6 paragraph on Page 4 of this order.

7 MR. SEIVER: Excuse me, if I might interpose an
8 objection. I'm just realizing now that this is an incomplete
9 document. This is just the front page and Page 4. There are
10 apparently more pages that are part of this order.

11 COMMISSIONER CARTER: What's the purpose on this
12 document, Mr. Willis?

13 MR. WILLIS: Well, Mr. Harrelson indicated that the
14 audit that Tampa Electric was going to conduct was just a
15 billing audit, whereas your order in the final paragraph
16 describes much more than a billing audit. It describes a
17 number of things that I was going to ask him to refer to.

18 MR. SEIVER: I think for completion, if we are going
19 to have this as an exhibit, and I know Mr. Willis hasn't marked
20 it as a hearing exhibit yet, that we should have the whole
21 order, at least for reference.

22 COMMISSIONER CARTER: Hang on a second.

23 MR. WILLIS: I have a copy if he would like.

24 COMMISSIONER CARTER: Hang on a second.

25 Ms. Helton.

1 MS. HELTON: Mr. Chairman, it is not our practice to
2 mark Commission orders as exhibits. It's something that you
3 can officially recognize, although we don't even typically
4 officially recognize it. I think it's just assumed by everyone
5 that you can use and rely on Commission orders.

6 However, it seems like a valid concern to me that he
7 has that he would like to have the full body of the order
8 before him so that he can look at it and maybe perhaps let his
9 witness look at it. So, if Mr. Willis has one that he can look
10 at, maybe we could let him do that and then move forward.

11 COMMISSIONER CARTER: That sounds like a reasonable
12 suggestion to me. (Pause.)

13 BY MR. WILLIS:

14 Q Mr. Harrelson, would you read the last paragraph on
15 Page 4 of Order Number 06-0351?

16 A Yes. Would you like for me to read it aloud?

17 Q Yes; please, sir.

18 A I mean, I will read it to myself. "Each
19 investor-owned electric utility shall develop a plan for
20 auditing joint use agreements that includes pole strength
21 assessments. These audits shall include both poles owned by
22 the electric utility to which other utility attachments are
23 made, i.e., telecommunications and cable, and poles not owned
24 by the electric utility to which the electric utility has
25 attached its electrical equipment. The location of each pole,

1 the type and ownership of the facilities attached, the age of
2 the pole, and the attachments to it should be identified. The
3 utility shall verify that such attachments have been made
4 pursuant to a current joint use agreement. Stress calculations
5 shall be made to ensure that each joint use pole is not
6 overloaded or approaching overloading for instances not already
7 addressed by Order PSC-06-0144-PAA-EI.

8 Q That describes much more than just a billing audit,
9 doesn't it?

10 MR. SEIVER: Objection. He's trying to characterize
11 what the order says. It speaks for itself.

12 MR. WILLIS: All right. I will withdraw the
13 question.

14 COMMISSIONER CARTER: Okay. Let's move on.

15 BY MR. WILLIS:

16 Q If you will refer to Page 33, Line 24 of your
17 testimony. You indicate that your experience is that
18 third-party attachments do not significantly increase load on
19 poles and overlashing has only a very small incremental effect
20 on already attached strand and assembly. Do you see that
21 testimony, Mr. Harrelson?

22 A Yes.

23 Q You will agree that CATV attachments and overlashings
24 do place additional loadings on a pole?

25 A I do.

1 Q And you will agree that it is possible for an
2 overlashed CATV attachment to create an overloaded situation?

3 A It is possible to increase the load on the pole.
4 It's possible to overload a pole that is not overloaded. It is
5 possible to add more load to a pole that is already overloaded.
6 So with the recognition that increasing load can cause all of
7 those possible effects, yes.

8 Q You will agree that cables as large as an inch in
9 diameter can be added and included in an overlash?

10 MR. SEIVER: I'm sorry, objection. Included by who
11 and when and what?

12 COMMISSIONER CARTER: I think there is probably not a
13 foundation for this, Mr. Willis. So let's -- I mean, let's
14 move on.

15 BY MR. WILLIS:

16 Q Will you agree that six or more cables can be
17 overlashed into a bundle?

18 MR. SEIVER: Same objection.

19 COMMISSIONER CARTER: Mr. Willis, if you want to ask
20 this witness things that are within his area of expertise, then
21 let's do that and kind of let's stay within the confines of the
22 four corners of the record.

23 BY MR. WILLIS:

24 Q Okay. Well, Mr. Harrelson, will you refer to your
25 deposition at Page -- do you have a copy of your deposition?

1 A Yes, sir.

2 Q Would you refer to your deposition at Page 112?

3 A Oh, the deposition. I'm sorry, I don't have it.

4 MR. WILLIS: Okay. Well, I may come back to that in
5 a minute.

6 COMMISSIONER CARTER: Staff, do you have a copy that
7 you can provide?

8 MS. FLEMING: Yes. Staff would note that that is
9 part of the Staff Composite Exhibit 6, and it should to be your
10 right. It's Exhibit 6, Tab 4.

11 MR. SEIVER: I have an extra copy.

12 COMMISSIONER CARTER: Thank you. You may proceed.

13 THE WITNESS: I'm at 112.

14 BY MR. WILLIS:

15 Q Would you read Line 16 through Line 23?

16 A On Page 112?

17 Q Yes.

18 A Mine starts by saying Page 16 talking about increased
19 storm restoration delays.

20 Q On your deposition?

21 A Well, this copy it does.

22 COMMISSIONER CARTER: Okay. Hang on a second. Let's
23 take a minute and -- let's just take a minute to get the proper
24 documents before the witness. Let's just take a minute.

25 THE WITNESS: I see two different numbers on the

1 page. There is more than one page on each.

2 COMMISSIONER CARTER: Off the record.

3 (Off the record.)

4 COMMISSIONER CARTER: Let's go back on the record
5 here.

6 What I thought we were doing, I was very optimistic
7 looking at the clock, and I see right now we are still knee
8 deep in the tall trees and the deep woods with the ticks, so I
9 think that this is probably a good breaking point, since we are
10 where we are now, looking at documents and things of that
11 nature.

12 I think what we are going to do, Commissioners, if
13 that is okay with you, we will just break for now and pick up
14 again tomorrow at 9:30 and proceed from there and give
15 everybody a good night's sleep and be ready. And eat your
16 Wheaties in the morning and be ready to roll.

17 Staff, are there any matters that we need to discuss
18 prior to our recess and for the day?

19 MS. FLEMING: One matter would be Hearing Exhibit 44,
20 which was the Slavin deposition transcript. We need to get
21 that moved into the record. I would note that the errata sheet
22 was left off the exhibit, and Ms. Keating is bringing that
23 around to attach to the back of Exhibit 44.

24 COMMISSIONER CARTER: Okay. Let me ask you this, I
25 thought that we had already moved 44 in, then we just put down

1 each one of the different case numbers, is that -- did we not
2 do that?

3 MS. FLEMING: Exhibit 44 has not been moved into the
4 record.

5 COMMISSIONER CARTER: Slavin?

6 MS. FLEMING: That's correct, and it is only being
7 moved into the record for the FPL docket.

8 COMMISSIONER CARTER: Okay. So show that done.

9 (Exhibit Number 44 admitted into the record.)

10 COMMISSIONER CARTER: Any other preliminary matters?

11 MS. FLEMING: That's all I'm aware of right now.

12 COMMISSIONER CARTER: Any preliminary matters from
13 any of the parties?

14 Okay. See everybody tomorrow bright and early at
15 9:30.

16 MR. WILLIS: Is it alright if we leave our materials
17 here overnight?

18 COMMISSIONER CARTER: Yes, we will secure the room.
19 They will secure the room, not we.

20 (The hearing adjourned at 4:50 p.m.)

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1 STATE OF FLORIDA)
2 COUNTY OF LEON)

CERTIFICATE OF REPORTER


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I, JANE FAUROT, RPR, Chief, Hearing Reporter Services Section, FPSC Division of Commission Clerk, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

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' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 18th day of October, 2007.



JANE FAUROT, RPR
Official FPSC Hearings Reporter
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