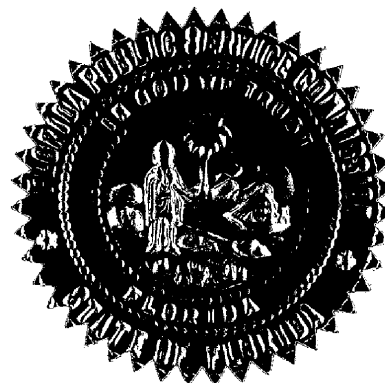


BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. UNDOCKETED

In the Matter of

ELECTRIC UTILITY INFRASTRUCTURE
WORKSHOP.



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VOLUME 2

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PROCEEDINGS: Electric Utility Infrastructure
Staff Workshop

DATE: Monday, January 23, 2006

TIME: Commenced at 9:10 a.m.
Concluded at 5:41 p.m.

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

REPORTED BY: JANE FAUROT, RPR
Official FPSC Reporter
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P R O C E E D I N G S

(Transcript continues in sequence from Volume 1.)

MS. HELTON: We have heard from the local governments and some technical experts during the morning session, and now we're going to turn to the utilities to hopefully learn some things about what has happened in the state the last couple of years, at least, and to hear what ideas they might have for mitigating any future damage in the next upcoming storm seasons that unfortunately we have been told could be just as bad if not worse than the ones we have had the last two years.

We are not going to keep a tight time frame this afternoon like we did this morning. We have asked the utilities to work among themselves to kind of decide how much time they each needed, but we are also not going to be perhaps as polite as we were to the presenters this morning in that we envision interrupting you and asking questions as you are going along. I think that that might give us a little bit more meaningful dialogue.

So first up is Michael Spoor with Florida Power and Light.

MR. SPOOR: Thank you. Good afternoon, everyone.

Before I get started, actually, on the Florida Power and Light presentation, I would like to just say a couple of opening remarks on behalf of all of the IOUs. As was mentioned, my name is Michael Spoor. I'm the Director of

1 Distribution System Performance for Florida Power and Light.

2 I'm responsible for distribution reliability and hardening and
3 emergency preparedness.

4 A couple of points that I do want to make in regards
5 to, again, on behalf of all the invest-owned utilities. First,
6 we recognize the impacts of the 2004 and 2005 hurricanes on
7 Florida's electrical system. And, more importantly, the
8 impacts it has had on our customers and actually the
9 communities that we, ourselves, live in. Because of this, it
10 is time to take a fresh look at these ideas. And so,
11 therefore, all of the IOUs endorse this effort and agree that
12 it is critical for Florida's economic vitality and the security
13 moving forward.

14 We compliment the PSC and Staff for undertaking this
15 effort, and certainly appreciate the opportunity to participate
16 in today's workshop and any activities that may be happening
17 moving forward. Florida's investor-owned utilities have
18 extensive experience and are ready to actively and
19 constructively help evaluate infrastructure alternatives that
20 work for Florida. For this process to ultimately provide the
21 best results, we must take time to understand all of the facts
22 and options to ensure that whatever changes we make are truly
23 for the better.

24 So now I would like to speak specifically about FPL.
25 With me here today are some of our technical engineers from

1 both our transmission and distribution groups if there is, by
2 chance, a question that I may not be able to answer that they
3 may be in a better position to answer. In addition to my
4 presentation today, the staff had asked a series of questions
5 in advance of this workshop which I believe we provided
6 detailed responses already in advance.

7 MS. HELTON: Let me say, I think those responses have
8 been handed out today and also are available on the web. And I
9 have learned, since I made an announcement this morning that
10 everything was available on the website as of this morning,
11 that wasn't exactly true. We are having some technical
12 difficulties with Gulf Power's presentation, not because of
13 what Gulf Power gave to us, but because we are just having
14 computer issues that are larger than that. So hopefully by
15 tomorrow Gulf Power should be up, as well.

16 MR. SPOOR: I want to first start out by providing
17 some specifics about our service territory in Florida. We have
18 facilities along the east coast from Georgia all the way down
19 through Miami-Dade County. And on the west coast, we serve
20 just below Tampa all the way down through Naples and Fort
21 Myers. We have a growing system. In fact, for the last
22 several years we have been adding over 100,000 customer
23 accounts to our service territory. We have a very large
24 infrastructure, which includes over 68,000 transmission
25 structures, over 800,000 distribution transformers, and over

1 one million distribution poles that serve 4.3 million customer
2 accounts in the state.

3 My presentation today will cover our experiences from
4 the 2004 hurricane season and how those storms impacted our
5 infrastructure and customers. Next I'll talk about some
6 lessons that we learned from the '04 season, specifically ones
7 that we were able to apply to the 2005 season. Following that,
8 I will cover this past year's experiences and certainly, again,
9 how it impacted our system and our customers. What lessons we
10 might have learned already from the 2005 season, but more
11 importantly, what are the next steps that we need to take in
12 this initiative.

13 I think it's important to start, first, by providing
14 a recap, certainly going back to last season, or the '04 season
15 in terms of hurricanes. We believe this approach will only
16 work if, first, we recognize where we have been, where we are,
17 and then certainly where we need to go.

18 In 2004, FPL's service territories were impacted by
19 three direct hits by hurricanes. The first was Hurricane
20 Charley made landfall on the west coast of Florida on August
21 13th, 2004, as a Category 4 with winds of 145 miles an hour.
22 The hurricane force winds spread out over 60 miles and tropical
23 storm force winds were 210 miles wide. Charley was a
24 fast-moving storm. It impacted not only our west coast with
25 hurricane force winds, but also exiting near Daytona Beach

1 still as a strong hurricane.

2 Not soon after we completed our restoration efforts
3 for Charley, we were again impacted by a second hurricane,
4 Hurricane Frances, which made direct landfall in our Treasure
5 Coast area. Again, Frances was a very large hurricane.
6 Hurricane force winds were spreading out over 145 miles and
7 tropical storm force winds 345 miles wide. In essence, our
8 entirely 27,000 square mile service territory was impacted by
9 this hurricane.

10 Not only was it a big hurricane, but it was a
11 slow-moving hurricane. In fact, some of us that were involved
12 with it wondered if it was ever going to move off us. Well,
13 thank God it did 60 hours later, so we could effectively begin
14 our restoration efforts.

15 The last hurricane of the '04 season that had direct
16 impact on us was Hurricane Jeanne, which made landfall in
17 almost the exact area as Hurricane Frances did just a few weeks
18 earlier. Again, hurricane force winds extended 125 miles out
19 with tropical storm force winds at 315 miles wide.

20 Again, as part of the materials we have provided
21 already in advance we furnished maps that break down the
22 equipment repaired by FPL management area and/or region. This
23 slide here shows a cumulative summary of all the equipment we
24 repaired for the three 2004 hurricanes for the entire T&D
25 infrastructure. I don't want to necessarily highlight or go

1 through the entire list, but there are a couple that I would
2 like to highlight for everyone here today.

3 First is in terms of distribution poles. Just over
4 10,000 poles out of the one million that we have in our service
5 territory were replaced through all three hurricanes in the '04
6 season. This represents about one percent of the million poles
7 that we have in our pole population.

8 Our analysis after the hurricanes determined that the
9 majority of these poles broke due to falling trees and flying
10 debris, certainly a significant factor. Keep in mind that
11 these three hurricanes did have limited storm surge. In
12 essence, these were hurricanes that certainly had high winds,
13 but at least our service territory did not see the typical
14 impacts that you may have involving storm surge. I believe one
15 of the IOUs later today may be able to share a different
16 experience that they had in terms of storm surge on their
17 electrical grid.

18 For our transmission system, less than one percent of
19 the over 68,000 structures replaced were replaced during all
20 three hurricanes, with less than .1 percent of these structures
21 being replaced at any one storm. Although, as you can see on
22 this slide there was some substation equipment that was
23 replaced, none of the substations were damaged to the extent
24 that they were inoperable for the storms.

25 As has always been the practice at FPL, after the

1 2004 hurricane season we conducted a thorough lessons learned
2 assessment to not only identify what we did well, but more
3 importantly what lessons and what things we needed to do to
4 improve on our performance moving forward. To help us with
5 this effort, we hired a third-party consultant to assist in
6 evaluating our system performance as well as our restoration
7 processes. A copy of their report that they completed again
8 has been provided to staff as part of our advance responses to
9 the questions that you had asked.

10 Some of their key findings, though, were that FPL met
11 or exceeded standard utility restoration practices. FPL's
12 distribution, transmission, and substation facilities performed
13 well, and their comment, concluding comment was that they
14 believed that no other North American-based utility that they
15 were familiar with had restoration plans and practices in place
16 that could have successfully restored customers in a six-week
17 time frame after three major back-to-back disasters.

18 They did provide recommendations in terms of
19 opportunity for improvement, which several have been
20 implemented in time for this past 2005 season. Some of the key
21 ones are listed here. Specifically, certainly communicating
22 with our customers in terms of estimated time of restoration,
23 providing them better information at a lower level in terms of
24 when they can expect to have their service restored.

25 Secondly, establishing a better partnership with the

1 local EOCs to identify the critical infrastructure that is key
2 to bringing up on the front end of these hurricanes to get the
3 communities back up and running.

4 Lastly, was certainly a key one, which was to
5 establish partnerships in terms of resources. You heard
6 earlier today from a representative from EEI the criticalness
7 of mutual aid assistance. This was a key enhancement to
8 continue to leverage those alliances with other utilities.

9 In addition to the third-party consultant review, we
10 also conducted our own internal reviews. For distribution,
11 although we believe we had good data after the '04 season, we
12 recognized that there was an opportunity to obtain even better
13 data. So one of the key learnings that we had was the
14 development of what we called forensic teams, which were, in
15 essence, our product engineers being able to go out immediately
16 after a storm has passed, when it's safe, to gather firsthand
17 information on the ground, if you will. And you will see later
18 where that has been a critical feed to our analysis after the
19 '05 season.

20 For our transmission and substation system, there
21 have been several initiatives that are or have been
22 implemented. Again, several of those details have been
23 provided in advance to the responses to the questions that were
24 asked by Staff. It's important to emphasize that these parts
25 of our transmission systems that did have activities completed

1 after the '04 season actually performed quite well for the '05
2 storm season.

3 In 2005, there were four hurricanes that actually
4 impacted our service territory, two with the outer bands
5 sweeping across our service territory, which were Dennis and
6 Rita, and certainly having an impact on our customers, and then
7 two direct hits.

8 On the evening of August 25th, Hurricane Katrina made
9 landfall near the Broward/Miami-Dade line. It made landfall
10 with hurricane force winds of 80 miles an hour which extended
11 over most of Southern Florida, which happens to be our most
12 densely and highest populated areas. Tropical storm force
13 winds extended out 160 miles.

14 Hurricane Wilma, which became a hurricane on October
15 18th, grew in strength to a Category 5 on October 19th,
16 registering the lowest central pressure ever, and therefore the
17 most powerful hurricane on record in the Atlantic basin. It
18 made landfall on the southwest coast of Florida near
19 Marco Island on October 24th as a strong Category 3. It
20 crossed the state quickly and exited just north of Palm Beach
21 as a Category 2 hurricane. Hurricane force winds again
22 extended out 125 miles from the center and tropical storm force
23 winds out over 200 miles.

24 In addition to impacting our customers on the west
25 coast, Wilma also impacted our customers in the tri-county

1 area, Palm Beach, Broward, Miami-Dade. Although Hurricane
2 Wilma was not the strongest hurricane ever to hit our service
3 territory, I believe many of us believe it was certainly one of
4 the most challenging to provide restoration to our customers.

5 Again, in our written responses we have provided the
6 equipment that we replaced at a regional or management area for
7 the 2005 season, and here are the cumulative totals. Again,
8 there are just a couple that I would like to highlight. The
9 first being that just under 13,000 distribution poles, or again
10 around one percent of our total one million poles were in need
11 of replacement with the cumulative of the hurricanes of 2005.
12 This is both for FPL and non-FPL poles.

13 For our transmission system, no structures needed to
14 be replaced during Hurricane Katrina and those structures that
15 were replaced as a result of Hurricane Wilma were located in
16 the center part of the state near Belle Glade, with the
17 majority of the damage occurring on just a few line sections.

18 Just as in 2004, minimal substation equipment needed
19 to be replaced, however, eight of the substations, or 1.5
20 percent of the total substations were inoperable for a short
21 period of time after Wilma until this equipment could be
22 replaced.

23 Just as we did in 2004, we again have begun an
24 exhaustive and comprehensive lessons learned to really review
25 and understand how we can improve moving forward. Immediately

1 following the restoration effort, we retained an
2 internationally recognized outside consulting firm, KEMA, to
3 perform a review of the FPL facilities after Wilma to better
4 understand if the transmission and distribution systems
5 performed appropriately.

6 Earlier today, just before lunch, you heard from
7 Doctor Richard Brown with KEMA, who led this effort. The key
8 areas that KEMA evaluated as part of our review are shown here
9 on this slide. This review is not only covering the
10 infrastructure performance, but it also reviewed our standards
11 and compliance with the NESC, which there has been some
12 discussion this morning about, the quality of the poles that we
13 purchased, our pole maintenance practices, as well as an
14 industry benchmark with other utilities that may be subject to
15 areas of impact from hurricanes.

16 KEMA utilized an extensive amount of data, including
17 the forensics data I highlighted before, to draw their
18 conclusions and issue their final report. That final report
19 was completed just over a week ago, and we have included it not
20 only as part of our direct testimony in a docketed matter, but
21 also I believe there are copies that have been presented here
22 today, as well.

23 The key finding of the KEMA report was that FPL's
24 transmission, substation, and distribution systems are designed
25 to meet or exceed all safety standard requirements, and during

1 Wilma performed as expected and in accordance with FPL's
2 standards. In fact, they recognized that FPL's distribution
3 standards require poles that are 50 percent stronger than
4 required by the NESC.

5 As I mentioned, the final KEMA report was just
6 completed a week ago, barely two months after we completed
7 restoration efforts for Hurricane Wilma. We are now in the
8 process of reviewing those findings. More importantly, we are
9 now in the process of what we consider entering the next phase,
10 and that next phase is about further exploration to harden our
11 infrastructure.

12 As I showed you earlier before, the system
13 performance after the '04 and '05 hurricane seasons, both of
14 which were unprecedented, recognize or showed that our system
15 performed well. But as we have been saying here today, if
16 indeed the weather has changed, so must we.

17 We are currently in the process of now working with
18 KEMA to provide assistance in developing what we are calling a
19 hardening road map. And what this is really about is to what
20 extent do we want to harden the system, where we are now, and
21 the steps that we must take to get there. There has been some
22 talk this morning that, you know, there is no silver bullet.
23 It would be great to have one.

24 However, we do believe that there are opportunities
25 that we must explore. We must keep in mind that although there

1 is no single answer, that we must evaluate several items, some
2 of which Doctor Brown mentioned, many of which are listed here,
3 as just examples of areas that we must explore. In essence, we
4 have to take the probabilistic benefit of what some of these
5 items may do and certainly evaluate that against the cost.
6 Additionally, this will be a long process. I think this
7 morning it was highlighted, we certainly through this process
8 need to determine what we can do in the short-term and then
9 what we can do in the long-term, and we support that approach.

10 FPL believes this is the right thing to do. If
11 indeed, again, we are entering a period of heightened hurricane
12 activity, we must take a fresh look at these ideas. We at FPL
13 assure you that we will continue to support these efforts and
14 we will share our plans as we continue to develop them in the
15 coming weeks and months.

16 That concludes my formal presentation.

17 MS. HELTON: Mr. Spoor, I think that we have some
18 questions for you.

19 Mr. Trapp.

20 MR. TRAPP: Mr. Spoor, I'm Bob Trapp of the Economic
21 Regulation Section. I just have a few questions I would like
22 to direct your way, if I could.

23 MR. SPOOR: Certainly.

24 MR. TRAPP: Staff has looked at residential rates
25 being charged by Florida Power and Light, and we note that the

1 transmission component in the residential rates is roughly 4.3
2 percent total rates. We notice that distribution is about 15.8
3 percent total rates, so together we are only talking about 20
4 percent of the bill being represented by transmission and
5 distribution costs to the typical residential customer. So
6 that means that 80 percent of the system cost is going into
7 power plants and fuels for those power plants. Can you give me
8 some assurance or some feel that because you are only
9 20 percent of the dog, that you are giving the appropriate wag?

10 MR. SPOOR: Sure. I think that is a fair question.
11 And certainly I don't mean to stand up here and understand
12 everything about our rate structures, I will certainly leave
13 that to our rate structure department. In terms of investment,
14 though, as we have stated before, we have been investing in our
15 system. Certainly I think since 1998 we have invested over one
16 billion dollars alone in just the distribution infrastructure.
17 So we believe we are making the appropriate investments for the
18 world that we have lived in in terms of normal reliability.

19 Now, again, certainly as I mentioned, with the
20 weather changing, as it has changed we acknowledge that we must
21 take a fresh look in terms of what we are doing to our system.
22 So I recognize certainly that, you know, and certainly when we
23 develop our plans in the coming weeks and months, that we will
24 be looking at all avenues in terms of what we are currently
25 doing and then just certainly as important what we need to do

1 in the future.

2 MR. TRAPP: What about maintenance costs, have they
3 been on the increase? Have your budgets reflected increased
4 commitment to maintenance in the field for distribution in
5 particular, and also transmission?

6 MR. SPOOR: I can't speak for the transmission side,
7 but certainly in distribution. In fact, I know just this year
8 alone our vegetation budgets, I believe, are increasing in the
9 magnitude of 20 percent over what they were even last year,
10 which has already been increasing. So, in terms of investing
11 in our infrastructure, we certainly have been investing
12 dollars, yes, sir.

13 MR. TRAPP: But how long has that commitment taken
14 place? Has it just been the last two years as a result of
15 these hurricanes, or how does it compare to budgets ten years
16 ago? Are we keeping up with at least inflation?

17 MR. SPOOR: Well, again, I can't speak for some of
18 the funding levels ten years ago, but I can tell you dating
19 back as far as 1998 when we made a concerted effort to improve
20 our reliability, centralizing our efforts, and certainly doing
21 a more targeted approach in terms of how we can best spend our
22 money to get the biggest bang for our buck on our system, I can
23 tell you each and every year I believe those level of
24 investments have certainly been to a level that, again, as you
25 look at our performance, has certainly helped in our

1 estimations.

2 Again, that is not to say moving forward do we need
3 to explore other opportunities, I think my opening comments, as
4 I said, I think we certainly welcome the opportunity to work
5 with staff to understand if, indeed, there are things we can
6 do, again, to get the biggest bang for our buck.

7 MR. TRAPP: In terms of some of the speakers this
8 morning, we heard from -- let me look at my agenda. We heard
9 from Mayor Castro of Dania Beach, who offered what sounded to
10 me like good business practice feedback from the local
11 community that you serve. Some actual input from your
12 customers and the opportunity to work one-on-one with them to
13 pre-identify such things as vegetation management, discuss
14 openly undergrounding, hardening issues, and things of that
15 nature, and she indicated that she had put a proposal forward
16 to Florida Power and Light. Are you familiar with that
17 proposal?

18 MR. SPOOR: I'm personally not familiar with that
19 proposal, but I can tell you when she was talking I was taking
20 notes. And I'm sure if I don't reach out to her quickly,
21 somebody from FPL, if they haven't already, certainly will. I
22 concur. I think she had some great ideas in terms of working
23 with the local communities in that area.

24 MR. TRAPP: In addition to the community of Dania
25 Beach, could I ask you to look more globally up and down your

1 east and west coast and perhaps look at the concept of better
2 coordination/cooperation and get some input from those people?

3 MR. SPOOR: Certainly. I know other communities that
4 we are certainly engaged in conversation with and wanting to be
5 great working partners with them to ultimately improve things
6 moving forward.

7 MR. TRAPP: We also heard from the universities, and
8 there seems to be a lot more than I thought was going on in
9 terms of data collection with respect to coastal and inland
10 wind speeds and the effects on structures within the state.
11 What is Florida Power and Light doing in the area of working
12 with the educational community?

13 MR. SPOOR: Well, I believe Doctor Domijan from the
14 University of South Florida highlighted a project that we have
15 been engaged with them. It is really a research and
16 development program. To date, that has really kind of taken a
17 look at weather in terms of what it means to our day in/day out
18 reliability. Certainly, a question that can be asked is can
19 that be expanded to times of hurricanes? And although I don't
20 know if the definitive answer is yes, it is certainly an area
21 of exploration.

22 MR. TRAPP: I think Doctor Gurley outlined a program
23 that he is doing primarily in conjunction with the Department
24 of Community Affairs that is testing the impact of wind speeds
25 on building codes within Florida, and it just occurred to me

1 that if the University of Florida can do wind tunnel tests on
2 models of residential homes, why can't they do the same thing
3 for poles and lines. Have you explored that?

4 MR. SPOOR: We have not explored that particular
5 option. But certainly, again, it was a very compelling
6 presentation and certainly an area of exploration.

7 MR. TRAPP: I know that there are certain rivalries
8 that occur within the colleges within the Florida system, but
9 it seems even the University of Miami might have something to
10 offer in terms of --

11 MR. SPOOR: We actually do have -- in addition, as
12 Doctor Domijan had highlighted, even when he was at UF we were
13 still working on the project with them, and now he has moved to
14 the University of South Florida. We actually even have another
15 program that -- again, not necessarily related to hurricanes,
16 but in terms of weather, with FSU. So we do certainly try to
17 support and work with the local talent that we have in our
18 universities across the state.

19 MR. TRAPP: I think my staff has probably more
20 in-depth reaching questions, but I had just a couple overall,
21 and I think Connie wants to ask one before I turn it over to
22 staff, or before Mary Anne turns it over, Madam Chair.

23 I am a little concerned -- I want to ease my mind --
24 of are we just focusing on what has occurred in the last two
25 years because of the hurricanes, or are we constantly aware of

1 the problems of reliability, and concerns, and impact of
2 reliability on the citizens of Florida? And I wondered if you
3 could speak briefly on what that does Power and Light really do
4 in terms of being out there, looking at issues such as how do
5 you inspect your poles on a normal routine basis, how do you
6 inspect your lines on a routine normal basis, how do you
7 address vegetation issues? Could you give me just kind of a
8 brief overview of what is normal before we talk about what
9 maybe we need to react in terms of extra normal for hurricanes?

10 MR. SPOOR: Normal in terms of -- I mean, I guess if
11 I understand your question correctly, you know, it is part of
12 our annual reliability plans. They are made up of several
13 components that we believe touch our infrastructure in terms of
14 the conductors, the vegetation. Again, we do not have just one
15 program that would address one part of our system. It is
16 really a portfolio of reliability initiatives that we have been
17 deploying, executing, tracking for several years now.

18 So in terms of what we are doing for reliability, I
19 do believe we have those types of programs. I don't know if
20 there is one specific that you would like me to respond to, but
21 I guess my comment is, again, it is not just one specific
22 reliability initiative that we have. We believe we have a
23 fairly robust portfolio, if you will, of reliability
24 initiatives not only dealing with our overhead infrastructure,
25 but also our underground infrastructure. We invest a lot

1 annually on maintaining our underground infrastructure in terms
2 of replacing aged cable, injecting aged cable, so there are
3 several things that we do, we believe, to touch our
4 infrastructure.

5 MS. KUMMER: This is Connie Kummer with the
6 Commission staff. There are just a couple of points I wanted
7 to raise. You made the statement several times that FPL had
8 met the standards. We heard this morning that as a
9 non-engineer, to me it sounded like standards are really kind
10 of a moving target. We heard that loading on the poles makes a
11 difference, weather makes a difference, combination of things.
12 When you say "meet standards," are you looking at something
13 other than just the bare pole sitting out there when you
14 evaluate whether you meet the standards?

15 MR. SPOOR: It is a good question. When I reference
16 or make a comment in terms of meeting standards that is as we
17 build our system. So that would be including those
18 attachments, the equipment we may hang on the poles in terms of
19 are we meeting the standards end state, or once everything is
20 built, if you will.

21 MS. KUMMER: And given that we still are having some
22 problems, have you looked at whether or not the standards ought
23 to be changed, ought to be increased? I note that you said
24 some of them are built to 50 percent greater. Have you
25 explored that as a possibility?

1 MR. SPOOR: We certainly believe that, again,
2 although there is no silver bullet, I think it is an area that
3 we will look at. You know, I think part of what we are
4 concerned with, that it is not going to be just about a design
5 change, though. Certainly, and, again, I welcome the comments
6 from some of the community leaders today, specifically the
7 Mayor of Dania Beach. It is about how our system coincides, if
8 you will, with vegetation management in their communities.

9 Although putting stronger poles in, more poles,
10 shorter spans could ultimately be some of the solutions or part
11 of the things that we could consider to harden the system, we
12 also must recognize that, you know, a robust vegetation
13 management program, and that is not just necessarily the
14 utility trimming more trees, but it is certainly promoting our
15 right tree/right place, making sure that, again, both the
16 standards and where we build our system in terms of vegetation
17 that they both can coexist.

18 MS. KUMMER: And the last question. You mentioned on
19 your last slide, I think, that you are working to develop a
20 road map. Do you have a timetable when you expect that to be
21 in some kind of concrete form?

22 MR. SPOOR: We have not mapped out the time frame. I
23 know that we are -- just as we did with the final KEMA report
24 that just came out, we are fast-tracking that as quickly as
25 possible. I think all of the IOUs recognize that June 1 is

1 right around the corner. So in terms of things that we may be
2 able to do this year and things we may be able to do longer
3 term, we recognize it is of an urgent nature.

4 MS. HELTON: Bill, did you have --

5 MR. McNULTY: Yes, I believe both myself and Jim
6 Breman from staff have questions. And there may be additional
7 questions, as well.

8 MS. HELTON: And I want to remind the audience, if
9 you have any questions, if you would please put them on the
10 index cards so that Staff can ask them.

11 MR. McNULTY: Good afternoon, Mr. Spoor. I have just
12 a few questions.

13 One of them has to do with the response to a data
14 requests that went out related to this workshop, and I think
15 the very first question is actually covered in your
16 presentation, which is the damages that were done and the
17 various facilities that were replaced as a result of the
18 storms.

19 And I guess a general question I would have is that
20 is all good information to have. We see that it looks like the
21 preponderance of the data would indicate that distribution was
22 the larger infrastructure hit, but that transmission had an
23 important part of the storms, the recent storms, at least for
24 2005, and I'm sure for 2004, as well.

25 I guess my basic question is to what extent does data

1 exist to be able to look at the time frames for the
2 restorations of the different types of components. For
3 instance, you had major transmission structures that were down,
4 and you had to restore those, and the priority listing as we
5 know from your data responses says that you have to get your
6 transmission up first and then you have to move down the line.
7 I'm wondering if there is a possibility of data that the
8 utilities have, and FPL in this case has that would say we can
9 create a Gantt chart, some sort of a schedule that would show
10 how long it took to get transmission back up and running, how
11 long it took to get, you know, transmission substations, and
12 then all the way down the line, all the way to the service
13 drops to see if there is a blockage there. Some sort of
14 bottleneck that says, you know, we have these thousands of
15 people from around the country that are in our service
16 territory working right now and our real bottleneck is this.

17 First of all, I want to kind of get a sense,
18 generally, if you know if there is a bottleneck? And then,
19 secondly, what kind of data would there be to support reviewing
20 that type of analysis?

21 MR. SPOOR: Yes. In terms of whether there is a
22 bottleneck or not, I'm not aware of any that exists in terms of
23 the restoration process. In terms of whether that data exists,
24 it is something we would just have to take a look at. I mean,
25 certainly the way we approach these storms in terms of

1 restoration priorities, first and foremost our strategy is to
2 certainly get the generation and transmission systems back up
3 first and foremost, and then certainly working down to the
4 lower level devices.

5 You know, it has always been about restoring power to
6 the critical infrastructure in parallel to restoring power to
7 the parts of our system that can restore power to the most
8 amount of customers in the quickest and safest way. So it's
9 certainly something we would have to look at in terms of data
10 availability.

11 MR. McNULTY: And the reason I mention that is
12 because then that could help us focus on the type of equipment
13 that we would need to find the solutions for. Again, we have
14 heard the sentiment several times today there is no silver
15 bullet, but there certainly has to be areas to focus on. The
16 obvious thing that the eye is attracted to is 10,000 poles
17 down. But I'm wondering if there might be something to be
18 learned from if you have inventory data that says on day one
19 after the storm X number of transmission poles went out and
20 were replaced, and day two, and so forth, and so you can look
21 at and see on a day-by-day basis. That would be a data need
22 that I think that staff would like to review for the purposes
23 of seeing is there a bottleneck and how can we, you know, move
24 on from there to learn more about that bottleneck if there is
25 one.

1 MR. SPOOR: Yes. I guess I would -- and certainly it
2 is something we can look into. Again, the term bottleneck, I
3 think, you know, our restoration plans, we certainly have
4 effectively been able to apply the resources, all of these
5 resources, as you mentioned, from around the country as they
6 come in to make them the most productive work force possible to
7 restore power to our customers.

8 MR. McNULTY: Right. And, of course, the idea being
9 that if it is replaced in a nonstorm sort of environment, the
10 costs for that go down. And, of course, then you also avoid
11 the outages, and that is the obvious concern there.

12 I think we heard a couple of times this morning, I
13 think Commissioner Falcone, and then expressed again by Schef
14 Wright the concern about, you know, what really affects the
15 reliability of the system, is it most distribution or
16 transmission, and that sort of thing. And I wondered if FPL
17 had done any studies on that?

18 MR. SPOOR: Studies in terms of, I'm sorry?

19 MR. McNULTY: There was the question about
20 reliability, the impacts of reliability versus the
21 transmission, versus the distribution segments; and
22 undergrounding, the undergrounding versus
23 transmission/distribution, and which one of those affects
24 reliability more. He said that he could find no information on
25 the reliability issues there. I was wondering if you had any

1 information to share on that.

2 MR. SPOOR: Well, one of the difficulties, I think,
3 and, again, we continue to try to do that analysis in terms of
4 reliability differences, if they may exist, between overhead
5 and underground. And part of that challenge is certainly you
6 first have to define, you know, what is underground versus what
7 is overhead. I believe there was a slide from Doctor Brown
8 just before lunch that mapped out, you know, certainly you can
9 have parts of your system overhead, parts of your system
10 underground. You may have underground service in your
11 subdivision, but the lines that are feeding into those
12 subdivisions may be overhead. So to delineate, to say what
13 part of the system that is overhead, how is that performing
14 versus underground, we have not completed that analysis to be
15 able to say conclusively what that is telling us.

16 Again, a lot of that has to do with the hybridness,
17 if you will, of our system in that you may have an overhead
18 feed and you may also have part of the system that's ultimately
19 getting all the way down to your meter as underground.

20 MR. McNULTY: Is there a way to study the system such
21 that there may be pure overhead, pure underground and make
22 comparisons of those two different scenarios?

23 MR. SPOOR: We certainly would have to take a look at
24 that, if indeed those pure examples, as you highlighted, exist.

25 MR. McNULTY: Okay. Additionally this morning we

1 heard from Homac manufacturing and their idea about breakaway
2 connectors. And I wondered at that time, you know, to what
3 extent FPL had analyzed those. It seemed like another example
4 of where is the bottleneck. There must have been thousands of
5 service drops that had to be replaced. How important is that
6 type of technology a solution for the two concerns that we are
7 here for today, which is storm costs and storm restoration
8 time?

9 MR. SPOOR: Well, that particular prototype we have
10 not been engaged actively with Homac. Of course we do do a lot
11 of business with Homac, as they highlighted in terms of
12 connectors. It is certainly one that I think we need to
13 consider, again, in terms of new materials. I believe part of
14 anything we do moving forward, hardening can certainly be
15 defined as mitigating the impacts that a hurricane may have.
16 And certainly that, to me, was an example of a mitigating type
17 of strategy.

18 In essence, you may not necessarily be able to
19 prevent entirely what the hurricanes are going to do to your
20 system, but, in essence, if you can mitigate the damage that
21 they are causing to that with this breakaway connector that he
22 talked about, it is certainly something that I think we would
23 be open to look at as a possible solution.

24 MR. McNULTY: An additional question I had is on your
25 wood pole databases. I understand that the company is in the

1 process of developing a database that will eventually
2 incorporate the salient data such as vintage and pole type and
3 so forth throughout their service territory, and we are talking
4 about over a million poles, is that right?

5 MR. SPOOR: Yes.

6 MR. McNULTY: Is it on the table, and would it be --
7 in consideration of the storms of the last few years, would it
8 be advisable that instead of kind of developing this over an
9 eight or ten-year period, would it be advisable to expedite a
10 pole database?

11 MR. SPOOR: Well, again, I think as we look at
12 ultimately what are some of the solutions or options that we
13 have to explore, I believe that we will take a look at
14 everything. That may be one of them, as well. I don't think
15 we have made a decision yet. Like I said, we are really right
16 now -- we have just recently got the KEMA report in terms of
17 how the system performed. We are obviously quickly moving
18 toward the next phase, which is understanding what we need to
19 do moving forward.

20 MR. McNULTY: I would like to speak for a moment
21 about the third-party poles. And I think the KEMA report said
22 that FPL doesn't have a method today of tracking actions of
23 third parties once the third party has informed FPL that one of
24 their poles requires replacement, bracing, or treatment. I
25 think that was a general statement at some point, a key

1 finding. Is that something that needs to be addressed as well
2 in this process? I mean, does FPL need to start looking at
3 third-party arrangements with the third-party providers, and
4 whether or not they do a follow-through of their pole
5 population that is affecting electric service?

6 MR. SPOOR: Again, I believe that would be one of
7 those areas, again, that are certainly worthy of further
8 exploration in terms of what we can do with that moving
9 forward.

10 MR. McNULTY: I think you just a little while ago
11 mentioned a 20 percent increase in the tree-trimming budget for
12 the coming year, and that that follows upon previous increases.
13 Do you have an idea how that will best be spent in terms of is
14 it doing more of the same, or are you going to fundamentally
15 change the type of tree trimming that you are doing?

16 And by that I mean, for instance, if today you are
17 doing tunneling whereby overhanging branches are allowed to
18 remain, is there something different that is in your sights
19 today for becoming more -- having a more robust system?

20 MR. SPOOR: Yes. That particular one I can't respond
21 to in terms of are we changing our vegetation trimming
22 techniques, if that is what the question is.

23 MR. McNULTY: Yes.

24 MR. SPOOR: I would certainly have to get back with
25 you on that one and have to defer that one to our vegetation

1 management group that are the arborists and kind of the experts
2 in that field.

3 MR. McNULTY: Well, just in your general sense of it,
4 is there -- you looked at, and I think it was mentioned in the
5 KEMA report that trees are a very big factor and that
6 vegetation is a very big factor. Do the utilities need to be
7 more aggressive in Florida in tree trimming, I mean, in the
8 sense of looking at those options? I mean, I know you are
9 looking at them now, but there has to be some sort of
10 consensus, I'm sure, built within the company. But is that
11 something that needs to be looked at not just in terms of the
12 cycle, but in terms of whatever that standard is for line
13 clearances, you know, given today's standard versus where we
14 need to be?

15 MR. SPOOR: Well, again, I think that is one of those
16 areas that, you know, we would probably consider almost a
17 shared responsibility in that, you know, in terms of what we
18 spend or what trees we trim, how many miles we may clear.
19 Certainly those instances where, you know, communities may have
20 challenges in terms of where trees are planted, what types and
21 species of trees are planted in relationship to proximity of
22 our facilities, you know, I believe that whole area certainly
23 needs a little bit more analysis to determine. I don't think
24 it is just about spending more money on vegetation. I
25 certainly believe it is certainly one of kind of a shared

1 responsibility to understand what we can do to work with our
2 communities to better understand that.

3 MR. TRAPP: Could I interject here just a second,
4 Bill, and ask do I understand that Florida Power and Light's
5 current tree-trimming policy is confined only to road
6 right-of-way easement?

7 MR. SPOOR: When you say road --

8 MR. TRAPP: Road right-of-way easement areas are the
9 only areas that you feel responsible for?

10 MR. SPOOR: No, I believe part of our vegetation
11 program is trimming trees that are in close proximity to our
12 facilities, which is not just in road right-of-way.

13 MR. TRAPP: What is your policy with respect to
14 responding to community or individual customer concerns about
15 trees on their property that may affect their service drop?

16 MR. SPOOR: I believe that policy right now is
17 certainly reviewed by an arborist that actually goes out to the
18 site to evaluate the criticality of that and whether a crew has
19 to be dispatched right then or if it is incorporated into some
20 type of cycle we may be trimming on. I believe that is how
21 those are addressed.

22 MR. TRAPP: How many of the extended outages, the
23 longer outages that occurred during the last two years
24 hurricanes were associated with individual laterals versus --
25 excuse me, individual service drops as opposed to laterals or

1 primaries or long lines? I mean, do you have a lot of
2 customers that are left over without power because they had
3 vegetation problems on their property?

4 MR. SPOOR: I don't have that data to be able to know
5 if that's true or not.

6 MR. TRAPP: Do you have an aggressive educational
7 program that you send out as bill-stuffers, for instance, to
8 your consumers saying how important it is to keep vegetation
9 away from their facilities?

10 MR. SPOOR: Absolutely. In fact, again, I referenced
11 it as kind of our right tree/right place campaign that we have.
12 We aggressively market to all of our customers in terms of
13 making sure that they are not planting trees, or more
14 specifically certain tree species in close proximity to our
15 lines that ultimately may cause some issues as the trees begin
16 to mature and grow.

17 MR. TRAPP: And if you spent like another million
18 dollars on that program, would it significantly affect the 15
19 percent of the bill that's distribution now?

20 MR. SPOOR: That I don't know.

21 MR. TRAPP: It would come out of the existing
22 revenues, wouldn't it?

23 MR. SPOOR: I'm not sure how we would pay for those
24 campaigns.

25 MR. TRAPP: It would affect stockholders right now,

1 unless you came in for a rate case, is what I'm getting at. Is
2 that not true?

3 MR. SPOOR: Again, I'm more of a technical person.
4 In terms of how we would pay for those campaigns, I'm not quite
5 sure how we do that.

6 MR. TRAPP: Thank you.

7 MR. SPOOR: You're welcome.

8 MS. HELTON: Mr. Breman, did you have some questions?

9 MR. BREMAN: One or two. I've read some of the other
10 companies' responses. Progress, they decided in 2001 they are
11 going to get rid of all of their transmission -- wooden
12 transmission poles, especially their H-frame wood transmission
13 poles. Last year after some of the storms, I took the liberty,
14 or was told to, drive down and explore some areas in the
15 Treasure Coast area of FPL. And there is a lot of H-frame
16 construction on the transmission over there still, and some of
17 it was pretty patched together. My words, not technical. It
18 probably meets code and all of that.

19 I also took the liberty of looking through FPL's 1993
20 report post-Andrew, and it said FPL was reconsidering its use
21 of wooden H-frame pole construction. So it seems to me that
22 adding two and two together suggests that FPL should be not
23 only mitigating away about not putting any new H-frames in, but
24 also replacing the old ones. So where are we on that?

25 MR. SPOOR: That particular question, if I can, I

1 will probably defer to Mike Warr, who is in our transmission
2 group.

3 MR. WARR: With regards to wood H-frames on our
4 transmission system, we no longer do that. It's not part of
5 our standard. Our standards now are, for the lower voltage,
6 typically made up of round spun concrete pole with polymer post
7 insulators. I recall the last sparwood H-frame line that we
8 installed was somewhere in the '80s, early '80s.

9 With regard to maintenance, whether we do
10 maintenance, relocations, new projects, we try and bring them
11 up to our current standards, which are round spun concrete
12 poles with polymer post insulators.

13 MR. BREMAN: Also, probably a transmission-related
14 question, but it might also fit distribution. Earlier today we
15 heard some comments about wind giving a good shake to the
16 infrastructure. Also, in the KEMA report, if you read through,
17 one of the paragraphs talks about finding loose bolts, nuts,
18 some of them missing, probably due to the shaking and the
19 vibration that occurs when winds impact the facilities. On
20 distribution it would be more related to the cross-arm
21 structures, whether they are bolted or whatever.

22 In the post-storm sweeps, how thorough are the
23 sweeps? Do you all check for loose nuts and bolts like that?
24 Do you climb the poles that are in the hurricane wind areas?

25 MR. SPOOR: For distribution, our post-sweep

1 assessments do not include climbing the poles. It is certainly
2 more --

3 MR. BREMAN: Well, you could use a bucket.

4 MR. SPOOR: I'm sorry?

5 MR. BREMAN: You could use a bucket.

6 MR. SPOOR: We could use a bucket. But really the
7 post-sweeps that we do are more about visually inspecting any
8 impacted areas items that certainly were caused by the
9 hurricane. In terms of whether we climb each distribution pole
10 or use a bucket to check, you know, all of the hardware, it is
11 more of a visual inspection just because mainly of the scope of
12 the work that we have to do, and certainly things that -- and
13 we believe we do a pretty good job of visually inspecting those
14 types of damage that may still be out there as a result of the
15 hurricane.

16 MS. KUMMER: Jim, if I could jump in just as a
17 follow-up. What do you look for? You do a visual inspection
18 for what?

19 MR. SPOOR: Certainly poles that may be severely
20 leaning still, as an example, from the hurricanes. Certainly
21 if there is dangered timber in that a tree was on the brink of
22 falling but has not fallen. Those are probably two of the more
23 obvious ones that we would do as part of our post-sweep
24 assessment in the impacted areas.

25 MR. TRAPP: On that transmission nuts and bolts

1 issue, am I given to understand that the nuts and bolts were
2 tightened to specification, but maybe the specification needs
3 to be revisited?

4 MR. WARR: For that particular line section, they
5 were installed to industry standard and to the same manner that
6 other 500 kV lines were built. But for that particular line
7 and than particular line design it wasn't sufficient in order
8 to keep them tight. As a result of that, you know, FPL is
9 going out now and making sure that we tighten all of that, all
10 the bolts on every structure that is out there. Additionally,
11 we are trying to look for commonalities with that particular
12 line section to see if they exist with other 500 kV lines that
13 we have on the system.

14 MR. TRAPP: So in terms of your transmission
15 structures you are going to mechanically tighten as opposed to
16 hand tighten the 500 kV section that was affected, but you are
17 also going out there to check the looseness of any other bolts
18 that are --

19 MR. WARR: I'm sorry, say that again, please.

20 MR. TRAPP: In terms of the one 500 kV section that
21 went down, and then you found problems with the specifications
22 for tightening the bolts, you have not only tightened those
23 bolts is what I am hearing you say, but you are going out to
24 all other transmission structures and testing whether or not
25 the current procedures for tightening still apply. Is that

1 what I heard?

2 MR. WARR: Well, it's two-fold. One of the things
3 that we are looking at are the commonalities for that
4 particular line section and does it apply for the rest of the
5 500 kV systems. But additionally, yes, sir, we have hired
6 contractors to go out to the our other 500 kV lines that were
7 not affected during Hurricane Wilma to do inspections on those
8 facilities, as well, too.

9 MR. TRAPP: What is confusing me is your terminology
10 "the commonality". What does that mean? You are looking for
11 similar --

12 MR. WARR: Something caused the bolts to come loose.
13 And what are those commonalities that caused those bolts to
14 come loose, and do they exist on other 500 kV systems that we
15 have out there?

16 MR. TRAPP: Okay.

17 MS. HELTON: Tom, did we have any questions from the
18 audience?

19 MR. BALLINGER: That, and I've got a couple of my own
20 I'll do first.

21 Do you know either through your own experience or
22 through the KEMA report what the primary cause of damage to the
23 transmission system was? Was it flying debris, was it snapped
24 insulators, a general feel.

25 MR. WARR: The majority of the damage that occurred

1 on the transmission system, I think we had a total of 100
2 structures that were impacted because of Hurricane Wilma, 65 of
3 those were single wooden poles. We had very little damage or
4 impact to wooden H-frames. The commonality between those
5 single wooden poles, they were confined, I think, to either
6 three or four transmission line sections, and they all had
7 similar profiles. Most were located in flat open terrain and
8 had some type of elevation berm in close proximity to it.

9 MR. SPOOR: I believe it is worth pointing out,
10 though, that I believe the KEMA report concluded that the
11 damage to the transmission structures did meet the standard at
12 the time that those structures were built, correct?

13 MR. WARR: (Indicating yes.)

14 MR. BALLINGER: And what is your typical inspection
15 and maintenance on your transmission system? If you want to do
16 it by voltage level, that's fine, or if it varies?

17 MR. WARR: It varies. We are continuously doing
18 inspections. We have primarily three methods of inspections.
19 The ones that we gauge everything off of is climbing
20 inspections, which is putting somebody on the structures and
21 physically climbing and sounding and looking and testing. And
22 it is from substation pull off to substation pull offs and all
23 points in between, and it is on some type of cycle, either a
24 three-year, four-year, or eight-year cycle. And the cycle is
25 consistent or is determined by several factors: The number of

1 components that are involved, the importance of the line
2 section to the system, the last time it was inspected. There
3 is a whole variety of components that go into determining what
4 frequency of cycle it is on.

5 There are other inspections that we do. We do ground
6 inspections. Contingency patrols, if we are taking out one
7 section what is going on with the other sections. We do
8 vegetation patrols twice a year. And then we do special
9 patrols, or special assessments for problems or challenges that
10 we have known or are considering.

11 MR. BALLINGER: Back to these single wooden
12 transmission lines. I presume they were probably 69 kV, or
13 were they much higher voltages?

14 MR. WARR: Most of them -- I think all of them were
15 69 kV, yes, sir.

16 MR. BALLINGER: Okay. And are they required to have
17 the same, I guess, safety standards as we have for the
18 distribution poles, or what wind speeds are they designed to?
19 Is it any different than distribution, being that they are a
20 single pole construction?

21 MR. WARR: The structures that came down during
22 Wilma, and actually and Frances and Jeanne, were primarily
23 built -- they were originally built like in the 1960s, and then
24 I think a couple of line sections had been relocated in the
25 1980s. So I'm not exactly sure what the code was at that time,

1 but, no, they would not meet the 60-mile per hour exemption for
2 distribution. But they would not be to the existing mile per
3 hour that is under the existing code.

4 MR. BALLINGER: So somewhere in between?

5 MR. WARR: Possibly, yes, sir.

6 MR. BALLINGER: During Wilma, Frances, and Jeanne,
7 did you have any equipment supply problems? Transformers,
8 conductors, insulators, did that ever cause a delay in
9 restoration that you can recall?

10 MR. WARR: In terms of material and delivery?

11 MR. TRAPP: Yes.

12 MR. WARR: No, sir.

13 MR. BALLINGER: Or labor problems? Did you have too
14 little labor or too much labor?

15 MR. WARR: No, sir. Actually for all Charley,
16 Frances, Jeanne, Katrina, and Wilma, we did it with in-house
17 personnel and on-site contractors for transmission and
18 substation.

19 MR. BALLINGER: So this is getting to that mutual aid
20 agreement, I guess, that seemed to work fairly well for you all
21 as far as -- I mean, does mutual aid also work for equipment as
22 well as labor?

23 MR. WARR: Yes, sir. And we never exhausted our
24 supply of materials.

25 MR. BALLINGER: Internal with FPL?

1 MR. WARR: Yes, sir, that's correct.

2 MR. SPOOR: For transmission and distribution we,
3 again, did not have any material issues.

4 MR. BALLINGER: Okay. We heard a lot with Wilma of
5 significant damage to substations in this event, much more so
6 than any other storms, which is kind of an isolated thing. Was
7 that ever a critical path in restoration of getting a
8 substation up, or was there still problems on the distribution
9 side that you had to worry about?

10 MR. WARR: No, sir.

11 MR. BALLINGER: So it wasn't a critical path?

12 MR. WARR: That's correct, sir.

13 MR. BALLINGER: And what was the primary damage to
14 your substations? Was it flying debris, was it trees, was it
15 just wind damage to the actual structures?

16 MR. WARR: I think Mike talked about it earlier, with
17 Wilma we only had eight substations, which is about 1.5 percent
18 of our entire system, that was considered inoperable. The
19 majority of those were even restored upon arrival to the
20 substation, so most of those it was getting somebody there. A
21 lot of our substations are built, you know, with redundancy, so
22 there is more than one transformer at a substation. So as long
23 as one of them is there, you can still pick up service.

24 MR. BALLINGER: I will jump to the third-party
25 attachments a little bit. It's a little out of my field, but

1 it raised an interesting question. What is done about contract
2 enforcement? We have heard a lot about other suppliers, if you
3 will, attaching on your poles, not notifying you, adding
4 additional things where it is changing loading and the utility
5 is not aware of it. What happens when you do find out about
6 something like this? Explain to me the contract enforcement,
7 how you go about that.

8 MR. SPOOR: In terms of if we find somebody attaching
9 to our facilities out in the field?

10 MR. BALLINGER: Yes.

11 MR. SPOOR: And, I'm sorry, if --

12 MR. BALLINGER: If you find out that somebody has
13 attached without your knowledge or they have added on
14 additional equipment and increased the loading, how do you do
15 it with your current enforcement, I guess, with your contracts?

16 MR. SPOOR: I don't know all the details of that. I
17 do know we do engage periodically with assessments in the field
18 to determine, if you will, the attachments that we have on our
19 facilities, or for truing up in terms of what we do
20 specifically to address if there is a violation, I don't know
21 that right now.

22 MR. BALLINGER: Okay. I have one question from the
23 audience. Did the KEMA report give you any specific
24 recommendations regarding the number or type of pole
25 inspections that FPL should do in the future? I haven't read

1 the report, I will be honest with you, but did they have any
2 recommendations of what to do in the future either as --

3 MR. SPOOR: Well, we really are right now still
4 engaged with KEMA to determine what indeed are the
5 recommendations. Again, the first part of their task was to
6 assess how the system performed specifically to Wilma and did
7 it perform as it should have. Now that that has been complete,
8 again, we are engaged with them in terms of not only
9 recommendations from lessons learned from Wilma, but certainly
10 moving forward are there things, again, that we can do to
11 harden our system.

12 MR. BALLINGER: Okay. So the going forward is going
13 forward, it is in progress?

14 MR. SPOOR: Absolutely.

15 MR. BALLINGER: Okay. Did KEMA attempt to separate
16 any percentage of poles and their failure modes, either rotten
17 base, or tree damage, or debris? Did they try to do anything
18 like that on the forensic side?

19 MR. SPOOR: Well, I think on the forensics data they
20 did certainly do, I believe, an exhaustive analysis in terms of
21 certainly trying to get to causes of poles falling. And I
22 believe that they concluded that the primary cause in terms of
23 why most of the distribution poles fell was because of wind
24 only.

25 MR. BALLINGER: Okay. Thank you.

1 MR. BREMAN: Excuse me, I have one clarifying
2 question. I was curious about the presentation on collocation
3 issues going undetected. I was wondering if you could support
4 the 20 percent range that was somewhat discussed this morning
5 by the one of the presenters?

6 MR. SPOOR: I'm sorry, the first part of that?

7 MR. BREMAN: The collocations going undetected.
8 Numbers like 20 percent were being talked about. Do you have a
9 feel for what FPL's numbers are?

10 MR. SPOOR: I don't. Today I don't have that
11 information in terms of what that would be specific for FPL.

12 MR. BREMAN: If it is near 20 percent, is that a
13 significant contributor to failure mode on the poles?

14 MR. SPOOR: Again, I guess I would have to see how
15 that represents, or how that relates to FPL before I could say
16 whether 20 percent is a significant rate in terms of failure of
17 poles or not. I can tell in normal performance, you know, I
18 think the KEMA report even highlighted that our pole
19 performance, if you will, is good. And I don't believe they
20 identified that as a high cause in terms of pole failures that
21 occurred during Wilma.

22 MR. BREMAN: Thank you.

23 MR. TRAPP: I'm going to ask Mike Staten to throw up
24 a chart that I think will help with this next set of questions.
25 We can start with that one, Mike.

1 We have talked about it some this morning, I think
2 several speakers have touched on it, but I'm given to
3 understand that this is from the National Electric Safety Code,
4 and it classifies Florida as a light wind loading area.

5 MR. SPOOR: I actually think the -- if I can
6 interrupt, I believe, and not to be well-versed on the National
7 Electric Safety Code, but I believe in terms of heavy, medium,
8 and light, that is in terms of ice loading.

9 MR. TRAPP: To ice loading? Good. We will go to the
10 next slide, then. This shows what I believe to be the high
11 wind speed criteria that's in the American National Safety
12 Code, and I'm given to understand that Florida does not use
13 this for distribution poles, that we classify our poles that
14 are below 60 feet in height as only basically having to
15 withstand 60 mile-per-hour winds.

16 My question, and I apologize, I haven't been able to
17 look at your presubmitted scatter diagrams where we were trying
18 to attempt to correlate where damage occurred during these
19 hurricanes and try to identify possible zones, and I think you
20 have touched on that, and I want to get this straight. KEMA is
21 working with Florida Power and Light to identify trouble areas,
22 trouble hot spots I think it has been called today, zones, what
23 have you.

24 My question to you is will that recommendation be
25 along the lines of how close to conforming with these high wind

1 speeds should we get to in Florida, and how much will it cost?

2 MR. SPOOR: Well, again, I think certainly we have
3 not, you know, done that analysis. That's certainly one avenue
4 that we would at least try to understand in terms of if you
5 were to do this, not only what it would cost, but also what it
6 would gain you. I think we recognize certainly that whatever
7 we do, we truly want to make sure that it benefits the
8 customers and certainly the residents of Florida.

9 And, again, I think, you know, we recognize, and that
10 is why we really endorse this concept of kind of having a tool
11 kit, if you will, for hardening. Because it won't, I don't
12 necessarily believe, just be designing or increasing the
13 standard that you build to. I believe if you do that and you
14 don't address things aggressively, or more aggressively in
15 terms of vegetation management or some of the other things that
16 could bring down those big poles just as easily as they may
17 bring down a smaller pole, I think those are all factors, when
18 you are doing this analysis, that you have to consider.

19 MR. TRAPP: And I'm glad that you said that, because
20 I agree with you 100 percent. Don't you have it look at these
21 lines of wind speed and ask yourself what does wind do? It
22 directly affects the poles, it blows debris, and it fells trees
23 and branches. Don't you have to correlate with this graph
24 vegetation densities in Florida, population growth and
25 development that produces the debris?

1 MR. SPOOR: Yes, sir.

2 MR. TRAPP: And don't you also have to correlate with
3 this type of concept flood zones? Can we see a map also of
4 where the flood zones are so that we can cross-check
5 undergrounding versus overhead. And when did you say that
6 study was going to be due?

7 MR. SPOOR: We haven't mapped out a time frame
8 entirely, but I can tell you we are aggressively working
9 towards that next phase. Again, this KEMA report in terms of
10 performance for Wilma is less than two weeks old, and so we are
11 certainly aggressively moving toward that second phase. Again,
12 I think all of the IOUs recognize things that we need to do or
13 should at least explore. You know, we are working aggressively
14 to do that in short order.

15 MR. TRAPP: And when do you think you will know when?
16 I mean, when do you plan to make the decision when to analyze
17 the study?

18 MR. SPOOR: Certainly over the next several weeks I
19 think we will be mapping out, kind of, that timeline to say,
20 you know, the tasks that we need or we believe need to be
21 explored and potentially the time it may take to explore those
22 tasks.

23 MR. TRAPP: I think at the end of this workshop the
24 chair intends to announce that you have one week to submit
25 written comments based on what we have heard today. What kind

1 of -- how far along toward that task will you be within a week?

2 MR. SPOOR: We will certainly be as far as we can,
3 certainly.

4 MR. TRAPP: You have been most helpful. Thank you
5 very much.

6 MR. SPOOR: You're welcome.

7 MR. McNULTY: Mr. Spoor, I have just one additional
8 area of inquiry. I want to ask you a little bit about wood
9 pole inspections. I know that wood pole inspections were the
10 subject of a staff management audit, and I know that the
11 company provided comments on the audit. And subsequently Wilma
12 occurred, and I think maybe Katrina may have post-dated that
13 period of the audit. What I am curious about is I have noted
14 that the USDA rural utility service makes the
15 suggestion/recommendation for Florida that says that pole
16 inspections, wood pole inspections should be on the order of
17 eight to ten years. And the types of inspections that they are
18 considering adequate in those cases are sound and bore
19 inspections that may include excavation, in fact, if certain
20 types of poles or types of wood are used.

21 I guess it is a two-pronged question. One is is
22 eight to ten years, is that somewhat of a standard or should be
23 a standard in Florida for wood pole inspections in comportment
24 with what the USDA or US has suggested, and is FPL considering
25 a cycle, a wood pole inspection cycle that would comport with

1 that?

2 MR. SPOOR: I think to answer the first part of your
3 question, I would probably have to defer until I actually see
4 the study to give an educated response in terms of whether I
5 think an eight to ten-year pole cycle is adequate. I have not
6 seen that study that you reference, so --

7 MR. McNULTY: It was a bulletin, a 1996 bulletin.

8 MR. SPOOR: Okay. I would have to certainly look at
9 that to be able to provide probably an educated response to
10 whether we agree or disagree with that study.

11 MR. McNULTY: As is practiced in the industry, is a
12 ten-year cycle a common cycle for the types of wood pole
13 inspections that would be sound and bore type inspections?

14 MR. SPOOR: Well, again, I think actually to the
15 second part of your question, which is what pole inspections
16 or, for that matter, any type of inspections that we may be
17 doing on a going-forward basis may look like. And, again, I
18 think that is certainly an area in working with KEMA, who we
19 really are looking to leverage their expertise in the industry
20 in terms of what's adequate, that certainly would be part of
21 something that we would consider.

22 MR. McNULTY: Thank you.

23 MS. HELTON: Thank you, Mr. Spoor. I'm sure you are
24 probably ready to sit down.

25 MR. SPOOR: That's okay, thanks. Good questions.

1 MS. HELTON: Next we will hear from Progress Energy,
2 David McDonald and Gary Furman.

3 MR. McDONALD: Good afternoon. I'm David McDonald
4 and I'm the Director of Distribution Asset Management for
5 Progress Energy. We appreciate the opportunity to be here and
6 be a part of this workshop. We feel like that both the IOUs,
7 the staff, and the constituents of this state understand the
8 importance of these discussions.

9 So with that, I would like to say that we have filed
10 a response to the questions that were submitted to us by Staff.
11 We presented them earlier, and I'm sure that you have had an
12 opportunity to reflect upon those and look forward to the
13 discussion coming up.

14 I want to speak about what we have learned over the
15 past two years at Progress Energy. We're going to be speaking
16 about the 2004 and '05 hurricanes, the impact to our service
17 territory. Also we are going to be mentioning exactly what
18 type of damage that we happened to see and our response to that
19 impact. And then we are going to offer up our opinions on the
20 outage mitigation opportunities that exist from the lessons
21 that we have learned.

22 One of the things I want to drive home about the 2004
23 and '05 storm season is there is really two issues of analysis
24 that we performed. One, how did we respond? What was our
25 response to the restoration efforts? And we did an exhaustive

1 analysis of that. Again, like FPL, and like Michael stated
2 earlier, we are very aggressive about our lessons learned. We
3 had over 140 lessons learned that we identified to improve our
4 storm restoration response. Those 140 lessons learned were
5 raised up to the highest level as far as the auditing of those
6 to ensure that we were very thorough in our response to those.

7 But then the second aspect of our analysis is how did
8 our system respond? And from that, that is what the focus of
9 our attention today will be is the response of our system to
10 the 2004 and '05. As you can imagine, for 2005 the impact to
11 us was minimal. We were very fortunate in that, that we had
12 the fringes of what FPL happened to see. We also had the
13 fringes of what Gulf happened to see from a Dennis perspective.
14 But from that there were still opportunities for us to learn.
15 Our discussions today are going to focus on the 2004 storm
16 season; more specifically, Charley, Frances, and Jeanne.

17 When you look at our service territory, we basically
18 cover the west coast north of Bradenton, and the central part
19 of the state of Florida. We cover up west of Tallahassee, over
20 to Deland, which is northeast of the Orlando area, and then
21 down to the Lake Wales/Sebring area.

22 Now, the first hurricane that we encountered last
23 year was Charley. You heard a lot of discussion about Charley.
24 That came through our service territory with 145-mile-an-hour
25 winds. It came up through the southern portion and exited out

1 through Deland. In that it came through the heart of our
2 central service territory.

3 Following that was Frances. Frances was a very long
4 storm. Again, coming in at the central part of our service
5 territory, moving throughout our system impacting every aspect
6 of our system.

7 And then the final one, Jeanne. Jeanne was 110 miles
8 an hour. As it moved through our service territory, we had
9 tropical force winds in the Pinellas County area, hurricane
10 force winds through the central part of the state. As you can
11 see from that, that trajectory, I believe it is Frostproof,
12 somewhere in the Frostproof area had the unfortunate
13 circumstance of all three storms coming right over the top of
14 them.

15 When you consider the path of those storms, one of
16 the things that needs to be emphasized is that most of our
17 damage was wind related, it was not storm surge related. These
18 were wind events for us at Progress Energy, these three events.

19 I want to speak to you for a few moments about our
20 outage experience. Three areas that I'm going to bring to your
21 attention have to do with substations, transmission miles, and
22 finally peak customers out. When you consider our substations
23 out, Frances had the greatest impact. One of the things that
24 we have identified through our analysis of our substations is
25 that the majority, the majority, and I mean great majority of

1 the substations that were out were caused by
2 transmission-related events. Damage within the footprint of
3 our substations was minimal for those three events.

4 Transmission miles out. Those are the miles that we
5 had out. And then finally peak customers out. You see a
6 pattern for these three bar graphs, that pattern being
7 basically that Frances was the biggest impact for us. And,
8 again, drawing your attention, Frances was over our service
9 territory for a very, very long time.

10 Sometimes when we see these graphs we focus on, the
11 previous graph about wind speed, we focus on just the
12 horizontal wind speed of hurricanes. As we all know, there are
13 is a lot of wind phenomenon related to hurricanes. There is
14 downbursts, there is tornadic activity, there is the horizontal
15 wind loading. And I have seen instances, or there were
16 purported instances of a vertical -- I'm sorry, a horizontal
17 wind pattern associated with the front of Frances. So when we
18 focus on wind phenomenon it goes way beyond just horizontal
19 wind loading and the wind speed that was reported.

20 The next item I want to speak to you about is our
21 damage experience. When you consider it from a facilities
22 perspective, and you consider our transmission structures, you
23 see that Charley, a Class 4 hurricane, had the greatest impact
24 on us. But then through the other storms that greatly
25 diminished.

1 Distribution transformers. One of the things I want
2 to point out, distribution transformers at Progress Energy, we
3 have over 400,000 distribution transformers. What you are
4 seeing reflected there is less than 1-1/2 percent of our
5 transformers we had to replace for those three storms.

6 Distribution poles replaced. We have over 1.1
7 million poles at Progress Energy. You are seeing 7/10ths of a
8 percent of our poles that failed as a result of three
9 hurricanes.

10 Yes, Jim.

11 MR. BREMAN: Regarding the transformer failures for
12 distribution facilities, and I guess I failed to ask this
13 question of Mike Spoor when he was up there, because I'm pretty
14 sure FPL had transformer replacements for distribution, too.
15 I'm kind of curious, what is the mode of failure of the
16 transformers?

17 MR. McDONALD: Well, there are several modes. One
18 mode, as you can imagine, there is still existing open-wire
19 secondary on our facilities. When you start having wind and
20 vegetation that interact with that open-wire secondary, there
21 is a good chance you are going to have shorting opportunities
22 that may occur. So electrical failures internally.

23 You also can have failures of the transformer
24 actually being on a pole that may have come down. Again, I
25 mentioned to you about our pole instances, or pole failures

1 were less than 7/10ths of a percent, so that is one of our
2 least significant contributors to pole failures.

3 So when you look at our transformer failures, the
4 third item that I would want to stress is the connection to
5 those transformers, whether it be service or secondary, trees
6 coming across those service or secondary, and the physical
7 movement of pulling that off the pole. So when you consider
8 those three factors, they contributed mostly to our failures
9 that we saw at Progress Energy.

10 MR. BREMAN: I guess the follow-up of that is is it
11 really time consuming to replace these transformers? I know
12 you said it is not a large quantity compared to the existing
13 system on a total basis. But all the people that are there,
14 you know, you have got 10,000 people scrambling around trying
15 to bolt the system back together and put it back up. I'm just
16 wondering how much time is really required to reset a
17 transformer on a pole and then set the pole.

18 MR. McDONALD: Well, what I would respond to that is
19 anytime we have a failure of any equipment it is going to be
20 time consuming, and dependent upon where that equipment happens
21 to be. If it happens to be in a rear easement that we don't
22 have access to it by vehicles, that prolongs our restoration
23 efforts. So, yes, there is time involved in replacing those
24 roughly 3,800 transformers. But that time involvement, when
25 you look at the entire fleet of transformers we have, and you

1 think about it from a significance perspective, is it
2 impactful? Absolutely. Does it take time? Absolutely. But
3 when you look at in the grand scheme of things and you think
4 about it from a risk/benefit analysis, and, again, from an
5 anecdotal risk/benefit analysis, does the risk for that entire
6 fleet of 400,000 transformers warrant the standards that you
7 have that resulted in roughly 3,800 transformers.

8 MR. BREMAN: Not having to replace the transformers
9 won't reduce the restoration costs? I mean, I'm just thinking
10 about are there options. Is this a way of identifying a hot
11 spot zone where prospectively we can improve our hurricane
12 hardening.

13 MR. McDONALD: There's a couple of things that could
14 be considered, and that's part of this workshop, of what are
15 those things we should be consider. When you think of the
16 physical connection, the electrical connection and the physical
17 connection, are there things that can be done? We mentioned
18 the Homac and their breakaway. Is there something else that
19 can be done at the connection at the transformer? These are
20 questions that have to be resolved that are not answered at
21 this juncture.

22 So, yes, to answer your question, are those things
23 that we need to weigh going forward? I think as IOUs that we
24 have to consider those types of issues and determine whether it
25 is the right investment. And by right investment, I need to

1 stress, right investment is from a totality perspective. From
2 the customers' perspective, from the company's perspective,
3 being the labor that it takes to restore that. So, yes, it is
4 a total response that we have to consider.

5 MR. BREMAN: I'm sorry.

6 MR. McDONALD: No, no, I just wanted to make sure I'm
7 answering your questions.

8 Now, when you consider the restoration experience and
9 the resources and the restoration days and the cost in
10 millions, again, you will see that Charley was very impactful
11 for us. You see that our restoration time frame for Charley,
12 which was our greatest, was nine days. Five days for Jeanne.
13 If you reflect back, we had over 722,000 customers out for
14 Jeanne. Cost in millions. You see the reduction in the cost.

15 So when you consider the three storms and you
16 consider these slides in comparison, what you have to also make
17 a component of your thinking is that Charley, a Class 4
18 hurricane, is a hurricane that required us to rebuild to some
19 extent. As you moved into the others it was more of a repair
20 and restore.

21 Damage assessment. Some of the conclusions that we
22 have come to, again, by our assessment of the 2004 season.
23 Transmission. Higher voltage performed better than lower
24 voltage. By that we are talking about the 230, the 115 versus
25 the 69. Concrete and steel performed better than wood for our

1 transmission structures.

2 Substations. One of the things I mentioned earlier,
3 no significant damage within the footprint of the substation.
4 And the outages for those substations due primarily to the
5 transmission lines that connected them.

6 For distribution, the preponderance of our failures
7 were tree-related. That damage was very prevalent throughout
8 our service territory that was impacted by these storms. The
9 last bullet, code standards. Not a significant issue from our
10 assessment. And the 7/10ths of the pole failures. When you
11 look at the wind-loading standards that we are required to
12 build to, in our assessment of the 2004 season, that was not a
13 significant contributor to our pole failures. It was the wind
14 related to the vegetation that caused our damage.

15 Going into a little bit more detail. Transmission,
16 Hurricane Charley. You see the hurricane force winds depicted
17 by the red, tropical storm force winds depicted by the orange.
18 You see it was a very tight and compact storm. Those locations
19 indicated there are the actual pole failures. And you see
20 within the hurricane force winds is where we had the majority
21 of our transmission pole structure failures.

22 Substations --

23 MR. TRAPP: Can you make an observation with regard
24 to the density of that curve in the center part of the state as
25 opposed to the coastal parts of the state? Is there anything

1 to be drawn from that?

2 MR. McDONALD: It's our service territory.

3 MR. TRAPP: Okay. So your service territory is just
4 in the center, you are not mapping the Power and Light
5 facilities?

6 MR. McDONALD: No.

7 MR. TRAPP: Do the Power and Light facilities show
8 the same pattern through the path of the storm?

9 MR. McDONALD: I don't want to speak for Florida
10 Power and Light. It would be just an assumption on my part.

11 MR. TRAPP: I would like for you all to speak for the
12 state. I mean, we asked you all to speak for the state. What
13 I would like to know, and I would like perhaps for you all to
14 get your heads together on this and tell us whether or not
15 there is a pattern of damage that just simply follows the path
16 of the storm, or whether or not -- I mean, these are
17 transmission facilities. As I understand it, they are subject
18 to the higher wind speed criteria and the national safety code.

19 MR. McDONALD: That's correct.

20 MR. TRAPP: I would be interested to know whether or
21 not because the center part of the state is built with regard
22 to the standard, it has to adhere to lower wind speed patterns,
23 whether or not you are picking up less damage on the coast
24 because they were built to higher wind speed levels, or whether
25 or not we are seeing some kind of pattern that might indicate

1 that one of the zones we have to be interested in is a more
2 equal wind speed application throughout the state.

3 MR. McDONALD: I think as you see the subsequent
4 slides you will come to the conclusion that this is purely
5 following the path of the storm. That's what we have found in
6 our analysis is that the damage is following the path of the
7 storm. There is no designated hot pocket if you will.

8 MR. TRAPP: I would like verification, joint
9 verification between Florida Power and Light and Progress on
10 this issue. Because you all are peninsular Florida. And it
11 seems to me that being the two largest companies in the state,
12 at least you all can get your heads together and answer this
13 question with respect to a statewide perspective. Thank you.

14 MR. McDONALD: Thank you. On the next one, Frances,
15 again, you see the damage that is following the path of the
16 storm. And then the subsequent one, Jeanne, fits the same
17 pattern.

18 MS. KUMMER: Excuse me.

19 MR. McDONALD: Yes, ma'am.

20 MS. KUMMER: Looking at that, it looks like you have
21 got a significant amount of damage outside of the path of the
22 storm that you don't see on the other two slides. What was
23 that? Mine had a lot of --

24 MR. FURMAN: If you flip back to Frances, or looking
25 at Jeanne, what you will see is -- and I think the professors

1 that talked, or the doctors that talked about hurricanes will
2 verify that probably your strongest wind in a lot of your wind
3 events, like tornadoes and so forth, to my understanding occur
4 in the top right quadrant of the hurricane. And you will see
5 here in Jeanne, you see some of the damage up in that area
6 there. So that is kind of the correlation that can be made
7 there. And that is within -- I think the gold area is within
8 the path of the hurricane force winds, as well.

9 MR. BREMAN: Excuse me. Is that essentially 69 kV,
10 is it just a lower design standard?

11 MR. FURMAN: Yes. The majority of what in damage was
12 a single wood pole, which is 69 kV. And a larger -- at that
13 voltage you will find a larger percentage of that in closer
14 proximity to vegetation, like along road right-of-ways and so
15 forth. So you did see additional damage to the lower voltage
16 systems we believe for that reason, additional
17 vegetation-related failures at the lower voltages similar to
18 what you would find in distribution.

19 MR. BREMAN: And just to beat a dead horse, the 69 kV
20 is built kind of shorter than the 115 and 230?

21 MR. FURMAN: Yes, typically it is going to be
22 shorter. And, you know, as you go down in voltage, you get
23 closer to your substations and so forth. So the routing of
24 those lines follow closer the type of routings that you are --
25 or locations that you would find distribution in, as well.

1 MR. BREMAN: So this isn't just showing wood, this is
2 showing concrete and everything?

3 MR. FURMAN: That is showing all the pole failures.

4 MR. BREMAN: Thank you.

5 MR. McDONALD: Let's speak about distribution now for
6 Hurricane Charley. I want to draw your attention to the map or
7 the graph on the left-hand side. If you notice, there are
8 three different colors of severity, the greatest severity being
9 red. Those are the amount of customers on a particular large
10 circuit, which we call feeders, the percentage of those
11 customers that were interrupted. You see on the left-hand side
12 that there is a greater percentage of customers that have been
13 interrupted from a red perspective, if you will. There is a
14 greater number of red than yellows on the left-hand side versus
15 the right-hand side.

16 Part of what this graph is depicting is what we
17 mentioned earlier, a major component or a major contributor to
18 our outages happens to be related to vegetation management and
19 the impact of wind on the vegetation. The second aspect that I
20 wanted to bring out is rear lot line distribution. We are
21 finding that the location of our poles is as predominant a
22 contributor as to what class the pole is built at from a safety
23 factor. To be more specific, rear lot line distribution, we
24 have our poles placed between homes, as you can imagine, on the
25 property corners. And within those rear lot line

1 distributions, again, you can probably imagine the type of
2 facilities that are there. Besides just the vegetation that
3 happens to exist, you have fences of all types, whether they be
4 wood fences, whether they would be vinyl, galvanized. You have
5 aluminum sheds. All within that compacted area that is all
6 within the rear lot line distribution. We have found that a
7 great or a large percentage of our outages were related to that
8 type of debris being blown into our facilities.

9 When you contrast that to the graph on the right-hand
10 side, the graph on the right-hand side has to deal with our
11 underground distribution. You'll see that it performed better
12 in Charley than our overhead. You'll see that there were fewer
13 customers out from a red, yellow, green perspective. So during
14 Charley we did have good performance from our underground
15 system, and it's -- go ahead, Jim.

16 MR. BREMAN: I apologize for keeping interrupting,
17 but just to confirm, when you have segregated out the overhead
18 and the outages, you have identified the point of failure so
19 that we know that the cause of the outage is due to a failure
20 of a piece of equipment that is either overhead or underground,
21 it's not a mixed bag like we heard some discussion earlier
22 today.

23 MR. McDONALD: No, it is indeed a mixed bag. What
24 you are seeing up there depicted is that on the left-hand side
25 over 50 percent of the customers served from those feeders are

1 overhead. What you are seeing on the right-hand side is over
2 50 percent of those customers are underground, served
3 underground from those feeders. Again, one thing I would
4 emphasize at this juncture, understanding the exact device that
5 failed during a storm of this magnitude and having a recorded
6 history of that is a very difficult thing to do.

7 One of the things that I want to bring out at this
8 juncture is that we at Progress Energy do appreciate the
9 performance of the underground system. We did have good
10 performance from the underground system. But you have to
11 understand that there are costs associated with that
12 underground system which we will talk about in greater detail
13 in just a few moments.

14 On the next page, again, similar diagrams for
15 Frances. You see that we also had better performance from our
16 underground system as far as the number of customers impacted
17 off those facilities, those underground feeders. And then
18 finally, with Jeanne, again, the same story. So, again, from
19 this perspective I want to emphasize underground performed very
20 well for us. Overhead was impacted by vegetation and impacted
21 by location. Three key lessons that we have learned.

22 MR. TRAPP: I'm still seeing, however, from these
23 charts that you are getting significant customer outages pretty
24 much in the same areas, whether it be overhead or underground.
25 Now, do you attribute that to underground being fed by

1 overhead?

2 MR. McDONALD: It is the density, our customer
3 density. If you look at that, there is a gap in our service
4 territory between that streak in the middle and the streak on
5 the left-hand side. So you look at our population centers.
6 Those are two population centers. The hurricane paths impacted
7 our population centers.

8 MR. TRAPP: How big are the circles, I guess, because
9 I see some red where I don't see some red in the underground.

10 MR. McDONALD: The circle is not depicting any type
11 of population. It's not rated towards the number of customers
12 served. It purely means we had a protected device of an
13 underground nature that interrupted at that location. And if
14 you think about that in greater detail, there's a lot of
15 overlap that occurs in this map.

16 MR. TRAPP: So I don't see -- weightings in this is
17 what I'm not seeing or --

18 MR. McDONALD: Weightings related to the number of
19 customers on that device, no, you would not see that. Not
20 based upon the circle size.

21 MS. KUMMER: I think I heard you say that a lot of
22 the overhead damage was due to rear lot line construction. Do
23 you build rear lot line construction any more?

24 MR. McDONALD: No. Rear lot line construction was
25 really predicated upon the previous easements that we had and

1 the construction standards not imposed by us, but imposed on
2 us. So when you had the platting of easements in some of our
3 older service territory, the easement was in the rear.

4 MS. KUMMER: So that is just primarily in the older
5 neighborhoods?

6 MR. McDONALD: That's correct. When you consider the
7 potential mitigation approach, and I think everyone has seen a
8 diagram like this or something very similar, starting at the
9 generation, moving to the substation via the transmission and
10 then to the distribution, what we have seen in our history and
11 our assessment of 2004 is the backbone, the feeders, if you
12 will, are something that we want to focus on and get back on
13 very quickly. When you look at the customer, when it comes to
14 the customer and the service drop to the customer, that is a
15 focus area that we need to consider in our plans going forward.

16 From an overall diagram perspective, there are three
17 areas that we are going to touch on. One, distribution,
18 mitigating the damage caused by the location, and also
19 considering the vegetation management. Transmission, looking
20 at targeted actions to harden those facilities.

21 More specifically, potential mitigation options. The
22 first one, evaluate a migration away from wood poles to steel
23 and concrete for transmission. The second arena we would
24 consider, further review of targeted underground conversion,
25 and we'll talk about that in greater detail in just a moment.

1 And the final, evaluate ways to facilitate vegetation
2 management.

3 The first one, evaluate migration away from wood
4 transmission poles. Referring back to what I discussed
5 earlier, we have found that our wood -- I'm sorry, our concrete
6 and steel in transmission performed better than our wood.
7 Roughly 80 percent of our facilities, our transmission
8 facilities, are wood poles. So from a migration perspective or
9 a hardening perspective, we need to investigate that aspect of
10 it.

11 The next one I would like to talk about is further
12 review and feasibility of targeted underground. We mentioned
13 targeted underground because we have all discussed the cost
14 related to undergrounding in its entirety. And that cost that
15 we discussed unfortunately sometimes centers around purely the
16 dollar cost. But I think when we consider undergrounding we
17 have to consider the total cost, what is the cost on the
18 customer. When you look at a conversion of facilities from
19 overhead to underground, what is the change from a customer's
20 perspective. That footprint that they had on their property
21 from a pole, how does that differ now. Do they have a bigger
22 footprint from something that is above ground? Questions that
23 have to be considered.

24 I can't stress enough from the Progress Energy
25 perspective, we understand how underground performed, we

1 appreciate how underground performed, but like everything else,
2 we need to evaluate all aspects of undergrounding.

3 Yes, Jim.

4 MR. BREMAN: The term total cost is a buzz word among
5 economists that means something. Could you please be careful
6 about what you mean by that. What do you mean when you say
7 total cost?

8 MR. McDONALD: Are you asking me?

9 MR. BREMAN: Yes, sir.

10 MR. McDONALD: Total cost is the entire cost
11 associated with undergrounding. Not only the financial cost to
12 undergrounding the utility facilities, the financial cost to
13 the customer. The financial cost of the facilities, where they
14 are located now, the easement rights that have to be gained,
15 those are just a portion of some of the costs that have to be
16 considered.

17 Now, the benefits also have to be considered and
18 should be considered first. What are those benefits and how do
19 those benefits weigh against the cost? So when you speak of
20 total cost, it is not just financial. There is financial,
21 there is cultural, there is a lot of different aspects of cost.

22 MR. BREMAN: And you are just proposing this for
23 conversions? I'm wondering why that is not applicable to new
24 construction, as well.

25 MR. McDONALD: When it comes to new construction, as

1 you can imagine, you are normally building within a greenfield,
2 so there is a lot of consideration that is being placed by the
3 developers and built into that particular project, if you will,
4 that these conversions would not have and would have to
5 overcome.

6 When you think about a developer that is developing
7 several hundred acres, what are the easements that they
8 provide, what are the areas that they provide for the equipment
9 above ground. These are normally built into those projects.
10 So as a customer would actually take ownership of that land,
11 they would understand what they have from an overall ownership
12 perspective.

13 When you consider undergrounding, one of the things
14 that you need to consider is the reliability of our
15 underground. And I mentioned during the hurricanes and during
16 our normal events the reliability of underground historically
17 does pretty well. But when it comes to restoring those
18 facilities, normally there is a cost associated with that and a
19 time frame associated with that. Those are some of the things
20 that need to be considered as we consider undergrounding
21 facilities.

22 One of the things I want to draw out at this point,
23 when we mentioned targeted, targeted is a key word. And the
24 point being is based upon storm surge, there may be areas that
25 you don't want to convert to underground or at least you should

1 consider it. The subsequent slide that I will show you will
2 illustrate this point.

3 This is a slide provided -- the information provided
4 by Pinellas County. You see that it depicts the five
5 categories of storm and you see the storm surge associated with
6 that. When you see this is Pinellas County, Category 5, you
7 see that a good portion of Pinellas County under a Category 5
8 storm is under water. You really need to question is that
9 where we want our facilities to be underground from a society
10 perspective. So those are some of the things that we need to
11 consider.

12 MR. McNULTY: Mr. McDonald, if I could interrupt for
13 just a moment. You talked about targeting underground
14 conversions. What are the ideas that Progress has for
15 targeting those underground conversions without socializing any
16 costs across the entire body of ratepayers and targeting, you
17 know, costs to the cost causer? How does the utility go about
18 encouraging those kind of conversions?

19 MR. McDONALD: I heard two questions in there. One
20 question I would ask how do we encourage conversions. We have
21 a constant communication process by which we make known to the
22 municipalities and to homeowner associations the capabilities
23 they have to convert, what mechanisms exist that would
24 facilitate that process.

25 As an example, we have a tariff that within the

1 confines of that tariff it shows the mechanisms by which they
2 can recoup that cost. So we communicate those mechanisms and
3 those capabilities, again, to the municipalities and to
4 homeowner associations, et cetera.

5 The other aspect of the question I heard was the
6 targeted aspect. When it comes to targeting facilities, you
7 need to consider -- and I think it goes back to Mr. Trapp's
8 question -- what are those areas that you would think not only
9 from a hurricane perspective, or from a 51-week perspective,
10 and by that I'm saying the one-week hurricane and the 51 weeks
11 of normal performance, are there areas that you need to
12 consider from an undergrounding perspective that would improve
13 the overall performance of the system to be able to withstand
14 the hurricane and be able to provide a service long-term.

15 So when you think about targeting, one of the areas
16 that you may consider is rear easement. Is that something that
17 you underground? Should you underground the rear easement, or
18 should you move it out front? Again, questions that need to be
19 evaluated if you are going for a long-term answer.

20 Yes, sir.

21 MR. TRAPP: When do you think you will have your
22 recommendations finalized?

23 MR. McDONALD: When you say recommendations, the
24 particular areas or --

25 MR. TRAPP: Well, first of all, let me steal Mary

1 Anne's thunder and compliment you for being responsive by
2 including scatter diagrams, and analysis, and that type of
3 stuff that engineers like to get our teeth onto. We do
4 appreciate that.

5 But we have heard both from Florida Power and Light
6 now, and I think from you, that we are going to study the
7 problem. I thought you were getting real close to telling us
8 what you thought you should do, but I haven't heard it yet, so
9 I'm asking. When will you have an opinion on what parts of
10 Pinellas County should be underground and should not? When
11 will I hear that recommendation from the company?

12 MR. McDONALD: Well, I think it would be unfair to
13 you to say that we have this particular date. I will tell you
14 that the process is underway. We have engineers that are
15 taking into consideration what we have encountered and the best
16 response to that. Now, I heard earlier about a one-week
17 submittal --

18 MR. TRAPP: Is that a one-week turnaround or --

19 MR. McDONALD: Well, that's what I heard about here.

20 MR. TRAPP: -- is that a one-year, or a ten-year
21 turnaround? When will the company bring to us specific
22 short-term and long-term recommendations, or do you want to
23 hear them from us?

24 MR. McDONALD: Well, I think that very soon we could
25 bring you recommendations.

1 MR. TRAPP: One week?

2 MR. McDONALD: I think very soon we could bring you
3 recommendations.

4 MR. TRAPP: One week.

5 MR. McDONALD: But you have to understand, in my
6 opinion, there's a lot that goes along with these one-sentence,
7 one-number recommendations that need to be considered by all of
8 us. And to have this one-sentence explanation with one number,
9 I think without the adequate discussion, the adequate
10 understanding, the impact of that for all of us within the
11 state, I think that we need to weigh that very judiciously.

12 So, could we respond? I think we could respond
13 quickly, yes. But I would apply a caveat to that that we all
14 need to understand what that means from not only our
15 perspective, but yours.

16 MR. TRAPP: And understand what staff is asking for,
17 too. We are asking for the one line simple solutions to the
18 simple problems, not to the -- you know, you can always come up
19 with a simple solution to a complex problem that is always
20 wrong. That is not what we are seeking here. We are looking
21 for simple solutions to simple problems. What's the
22 short-term.

23 But in terms of the long-term more complicated, more
24 convoluted, and the things that will take more time, I need a
25 path. Can you recommend a path of study, a course of action?

1 So I want two things. I want the short-term in a week and I
2 would like a path within a week, as well, if you understand
3 what I'm trying to communicate.

4 MR. McDONALD: I understand what you are trying to
5 communicate, and I would hope that that would be something
6 jointly we are pursuing. Because, quite candidly, I think
7 from -- and I will speak for my brethren, and maybe I
8 shouldn't, but I think from all of us this is a path we have to
9 embark on together, because this is not an easy answer.

10 And you said easy answers to easy problems. In my
11 opinion, this is not an easy problem arena. This is one that
12 requires some detailed understanding. Now, is it so complex
13 that we are frozen into immobility? Absolutely not. But it is
14 one that requires consideration; and within that consideration,
15 a plan moving forward. So can we meet your timetables? I
16 think we can meet your timetables of submittals. Do I think it
17 is the ultimate end all answer, absolutely not.

18 MS. KUMMER: I think just to underscore what Bob has
19 said is that I have heard a lot of what, well, we're thinking
20 about it, we're going to look at it, we don't really know yet.
21 And, quite honestly, those aren't acceptable answers. We need
22 to have a plan in place to be moving forward. And our
23 Commission expects us to come back to them with recommendations
24 the end of February. So we're going to need some help from you
25 all, or as Bob said, you can either help us plan it, or you can

1 depend on what we are going to come up with. So it is -- we
2 don't have six months, eight months, a year to do this. We
3 need to get moving on it. And I think that's the point that
4 Bob is trying to make.

5 MR. McDONALD: And I think he raises an excellent
6 point. It may not be evident in the presentation that I'm
7 giving to you, I hope it would be. But our intent is to come
8 here as an enabler of this process and to let you know that we
9 have looked at this from a broad perspective. We do have
10 considerations of what we need to do going forward.

11 However, for us to do that in isolation without
12 consideration from you all's perspective, your Staff's
13 perspective, and our brethren, for lack of a better term,
14 without that, I think that would be irresponsible on our part.
15 So the intent would be how do we bring these parties together
16 to present here is what we're thinking, here is what we're
17 thinking, here is what we all should be thinking. That is the
18 intent of our presentation here today. So I would hope that
19 you would believe me. I understand what you are asking for,
20 what all of you are asking for, and it is our intent to enable
21 you with that, but we are going to have to do it together.

22 So, again, depicting here a Category 5 storm surge
23 and the impact on Pinellas County. Going to the next slide is
24 what we consider from a vegetation perspective. When it comes
25 to our vegetation management, I'm going to sum it up in three

1 different bullet points. We need to be able to have the
2 capability of trimming within our legal boundaries, from ground
3 to sky. Is that strong? That's something that needs to be
4 considered, and you will see subsequent pictures of that
5 concern that we have. I think it was mentioned earlier about
6 the type of trimming: The B trimming, the C trimming, the
7 tunnel trimming. When it comes to vegetation management and
8 being able to lessen its impact from a hurricane perspective,
9 you have to look and ensure that you have the utmost clearance.

10 We have to look outside and ensure we have the rights
11 to trim those trees that come in contact with our facilities.
12 If you remember to the KEMA study, or the KEMA presentation
13 that was made today, it had a tree well outside of the easement
14 and its impact.

15 And then the final one is we need to have the
16 capability of doing something for those people that plant trees
17 directly in contact or in conflict with our facilities that
18 presently we do not have the right to be able to deal with.

19 MR. McNULTY: Mr. McDonald, I'm trying to understand
20 a comment that you made. You said we need the ability to be
21 able to trim our trees within our legal boundaries. What
22 prevents you today from trimming in your legal boundaries if
23 they are your legal boundaries?

24 MR. McDONALD: There are various municipal
25 limitations that we have that really restricts our ability to

1 trim within, whether it be the road right-of-way, and that is
2 where a large percentage of our feeders are located. So when
3 you consider our main circuits in road right-of-way, and you
4 have municipal ordinances that limit that. That is something
5 that needs to be considered, and how do we deal with that.

6 MR. McNULTY: So are we talking about expanding the
7 legal authority for the utilities to trim, is that what we are
8 talking about? I'm still a little bit hazy on the point.

9 MR. McDONALD: Having the legal capability, or having
10 the capability to trim those facilities, trim it out completely
11 is what we are discussing, versus tunnel trimming or C
12 trimming, if you will.

13 MS. KUMMER: Would, for example, perhaps legislation
14 giving you the right to trim that would override local
15 ordinances. I'm not saying that is a good idea, necessarily,
16 but that would be an example of something that would perhaps
17 assist.

18 MR. McDONALD: To your earlier point, as we came to
19 this meeting, the intent was we have a concern with vegetation
20 management. One of the issues we have is within right-of-ways.
21 Having the capability of trimming the facilities such that it
22 minimizes the impact of vegetation on our facilities. Right
23 now, local ordinances impede our abilities to get a true
24 ground-to-sky clearance from what we presently can do.

25 MR. McNULTY: Thank you.

1 MR. McDONALD: In this next slide you see one of the
2 issues we're talking about. If you look on the left-hand side
3 of that, you see that tree that is outside of our legal bounds
4 of trimming. But under hurricane force winds, there is a good
5 chance that that tree is going to be within our facilities.

6 MR. TRAPP: But it's growing under the line.

7 MR. McDONALD: There are two of them. If you look at
8 the one on the left, the taller one, the pine tree, the taller
9 one, that's the first one, and to your attention, the second
10 one is growing up into it. Neither one of those trees do we
11 have the right to trim and remove. But both of those, under
12 hurricane force winds, could definitely impact our facilities.

13 On the next slide, it is hard to see the facilities,
14 but you see the general V cut that is done. And what you would
15 see here is that outside of our legal rights, the trees are
16 towering above our facilities. Again, an issue when it comes
17 to vegetation management.

18 And the final one, we encounter this frequently. We
19 have over 18,000 miles of overhead circuit. Within one of our
20 jurisdictions it was brought to our attention that they just
21 planted 30 palm trees, and this was the municipal itself, just
22 planted approximately 30 palm trees right beneath our
23 facilities. That is something we deal with, that's something
24 we communicate with them, that's something we try to resolve
25 with them. But that is part of the challenge that you have

1 related to vegetation management.

2 We'll go ahead and move through these. You'll see,
3 see, again -- finally, concluding thoughts. Again, I have
4 stressed it here. It is imperative that we weigh not only what
5 we encountered in 2004, we mentioned 2005 wasn't a major impact
6 to us, but it was to those across this country learning from
7 FPL, learning from Entergy, CLECO, those other companies. That
8 is something a smart company does, and we are a smart company,
9 and we are pursuing understanding the lessons from those folks.

10 One of the things I want to impart to us all, we want
11 to do what is right, we want to do what is better, but we
12 should make sure we understand what that means. It is
13 mentioned many times here, and it's a well-worn phrase, but I
14 think it is worth repeating: There is no silver bullet. These
15 are complex issues, they require complex solutions, but I'm
16 confident that we are capable of that. Not only us, but the
17 staff assisting in that and guiding in that.

18 And, finally, Progress Energy Florida will continue
19 to evaluate alternatives in order to respond to this challenge
20 that we have going forward. The intent of our efforts at
21 Progress Energy of Florida is to ensure that we understand that
22 we are a key component of the quality of life of our customers
23 and the constituents of this state. And as such, we have a
24 responsibility to restore when a hurricane impacts us and make
25 sure that's the most efficient restoration effort, and to

1 invoke any and all cost beneficial, and I hate to use that
2 word, but I will use it, cost beneficial activities that will
3 ensure that our service territory is more resistant to
4 hurricane force winds. Those conclude my comments.

5 MR. TRAPP: I have two quick ones, if I might.

6 MS. HELTON: I think Mr. Trapp isn't willing to let
7 you off the hook yet.

8 MR. TRAPP: I just have two quick ones, to go back to
9 the earlier speakers and some points that were made this
10 morning. First of all, what are you doing to work with and
11 communicate with your local communities?

12 MR. McDONALD: We consistently, starting before the
13 storm season, during the storm season, during a storm, and
14 after a storm we are well linked with our community. We
15 communicate to them on a couple of issues. We communicate on
16 tree placement and the tree program. We communicate to them on
17 our restoration efforts. We build bridges based upon the
18 priorities that those communities have, and how do we best
19 respond to those priorities. So our response to our community
20 is pervasive and it's ongoing. It's a consistent process that
21 we pursue at Progress Energy.

22 MR. TRAPP: And, number two, what are you doing with
23 your state universities?

24 MR. McDONALD: State universities. When it comes to
25 our universities, most of our efforts, as far as state

1 universities, has been very limited. What we have been dealing
2 most of our efforts with have been more consortiums. As an
3 example, one of the consortiums that we are involved with is
4 looking at the life-cycle cost of a pole. And that is being
5 headed up by Davis Consulting, and it is involving over 18
6 utilities from throughout the United States and Canada. And
7 the intent is to understand when should a pole be maintained,
8 how should a pole be maintained, what is the optimum life-cycle
9 of that from a strength perspective, and what activities should
10 you be involved in. So we are more involved in our industry
11 consortiums than we have been historically with the --

12 MR. TRAPP: Are you doing any work on wind speed and
13 the effect of wind speed on utility structures with the
14 consortiums?

15 MR. McDONALD: I can only speak from distribution and
16 say that is very limited. We haven't been dealing with them
17 recently on that particular initiative. I'm not sure if
18 transmission has been.

19 MR. TRAPP: I would encourage you to speak to the
20 professors that are here today and see what they might have to
21 offer in terms of data that might be useful to the company.

22 MR. McDONALD: And that is a question that you asked
23 Mr. Spoor, and now you are asking me, and I think it is a key
24 question. And the point being is we have to spread out our
25 knowledge base, our intelligence gathering mechanisms from what

1 we have had in the past, and that is a key one that we need to
2 pursue moving forward.

3 MR. TRAPP: That's all I have. Thank you.

4 MR. BREMAN: Mr. McDonald, you just brought up one
5 question. When is that Davis study going to be done, the one
6 that does the pole study, life-cycle cost thing?

7 MR. McDONALD: To the best of my recollection, the
8 second quarter of this year is when the first phase of it is
9 complete.

10 MS. HELTON: Mr. Ballinger?

11 MR. BALLINGER: Yes, we had a few from the audience
12 come up.

13 You mentioned that in 2004 the prevalent cause of
14 damage was tree damage, trees interrupting lines. Do you know
15 if your budgeted tree-trimming expenses increased or decreased
16 in 2005, subsequent to that event?

17 MR. McDONALD: Well, a point of clarification, and
18 let me go back. The prevalent cause of our interruptions was
19 debris-laden wind. Whether that debris was vegetation, whether
20 it was aluminum sheds, it could be anything in that spectrum.
21 So that is a point of clarification that I wanted to add. Now,
22 for those related to vegetation, and your question being more
23 specifically -- refresh my memory -- '04 to '05, is that what
24 you said?

25 MR. BALLINGER: Yes.

1 MR. McDONALD: Yes. Our tree trimming budget
2 increased roughly 30 percent.

3 MR. BALLINGER: And do you know if your company is
4 evaluating waterproofing underground equipment?

5 MR. McDONALD: At this juncture -- when you consider
6 waterproofing equipment, underground equipment, most
7 underground equipment is sealed, except for the terminations.
8 And that is something that needs to be considered is those
9 points of termination, how do we seal those effectively.
10 Because that is where the intrusion, and that is where the
11 corrosion is imparted. That is something that presently we are
12 working with our standards group to identify through the
13 industry what is available and how do we apply that.

14 MR. BALLINGER: And one final question. You
15 mentioned that Progress is looking into replacing a lot of its
16 transmission wooden poles with steel or concrete, since they
17 perform much better over time, obviously. Do you anticipate
18 this coming out of current rates? Are you doing this now with
19 your current rates and revenues?

20 MR. FURMAN: In 1995, I guess, Progress Energy
21 stopped using wood poles for new construction. And in 2001,
22 early in 2001 stopped using wood poles altogether. So as we
23 replace wood poles at this time, we go back with either steel
24 or concrete poles.

25 MR. BALLINGER: So your replacement program is one of

1 when it is in need, when it's rotten, when it's destroyed, or
2 whatever.

3 MR. FURMAN: New construction.

4 MR. BALLINGER: New construction. Okay.

5 MR. FURMAN: New construction and replacement,
6 maintenance replacement.

7 MR. BALLINGER: Thank you.

8 MS. HELTON: Thank you, Mr. McDonald, for including
9 some specific information in your presentation today.

10 MR. McDONALD: Thank you.

11 MS. HELTON: At this time let's take a break until
12 4:00 o'clock.

13 (Recess.)

14 MS. HELTON: Please take your seats so we can get
15 started again. Thank you.

16 We are ready to get started again. At this point we
17 need to take things a little bit out of order. Alan Shaffer,
18 who is here with Lakeland Electric, one of the municipal
19 utilities in the state, has a plane that he needs to catch. So
20 we are going to take him in between all of the IOUs.

21 MR. SHAFFER: And I do want to thank you for
22 accommodating that. I wasn't quite sure what the schedule was
23 going to be, and then it got to the point where we couldn't
24 change it. I do appreciate the opportunity to come and speak.
25 And while I'm certainly representing Lakeland Electric, beyond

1 that I was asked to represent FMEA, which is a conglomerate of
2 all the municipal utilities in the state, and so I am actually
3 speaking for them this afternoon on their behalf. But I do
4 thank you for the opportunity.

5 And I certainly think that this is -- we have the
6 same goals coming through this. And as we have done our
7 studies, looked at the information coming out of the storms of
8 2004, and 2005, we have the same type of customers that demand
9 reliable service, and so we are dealing with the same issues,
10 even though the jurisdiction may be a little bit different.

11 Just a couple of words on FMEA and our member
12 utilities. We have 33 municipal electric utilities, but they
13 add up to be a significant portion of the state, about 15
14 percent of the total of Florida's electric customers. That is
15 not insignificant. About 11,000 miles of above-ground
16 distribution, 7,600 miles underground, 1,700 miles of
17 above-ground transmission, and 70 miles underground.
18 Approximately 300 substations. And every one of these storms
19 that has impacted Florida has impacted in one way or another
20 one of our member utilities.

21 This map represents where we are, scattered
22 throughout the state. And just goes to, I guess, verify how
23 anything that hits Florida basically impacts one of our members
24 in one way or another.

25 Narrowing the focus briefly in the next slide,

1 please, we had the unique situation in Lakeland and Polk County
2 to have seen the eyes of three storms come through the county.
3 I don't think it has never happened before, and hopefully it
4 never happens again, but it certainly changed our perspective
5 of what the storms can do. We, in Lakeland, are thankful,
6 really, that they came in the order that they did. Because
7 Charley impacted us the least significantly and taught us some
8 things about your emergency operations plan we didn't know, and
9 that we were able to make some adjustment. As Frances came
10 through, and then Jeanne, it was most impactful to us.

11 But while we had our share of the impact of the 2004
12 storms, my comments today are basically a conglomeration of a
13 questionnaire that we sent out to our member utilities and
14 responded by about 12 member utilities that represent probably
15 80 or 90 percent of all the municipal utilities in the state as
16 far as the customer base.

17 The nature of storm damage that we felt in our system
18 is not like what you have already heard today. The
19 transmission system in our particular cases was not that
20 significantly impacted, certainly not compared to the
21 distribution system which we will discuss in a little bit. In
22 specific, some of these notes I will be making throughout the
23 way were responses from specific utilities that may have had
24 some significant things to say. Kissimmee had 74 poles down
25 after Charley, which was a larger percentage than any of ours,

1 and recognizing the fact of the size of each of the utilities
2 that was a fairly large number of poles for them, and
3 significant for them. Fortunately, not too many of us had the
4 kind of problem that Keys Energy had with sailboat masts
5 getting into quite a few of their transmission lines as they
6 tended to wander around.

7 The nature of storm damage on the distribution
8 systems, however, were just as reported to you by, that you
9 have already heard by the other utilities, and certainly in a
10 much greater extent, much more severely affected. Vero Beach
11 lost 100 percent of their customers from Hurricane Jeanne. In
12 Lakeland we lost 80 percent in Jeanne ourselves, which, as I
13 already mentioned, the most severely impacted by that storm.
14 And others, of course, throughout the state had varying amounts
15 lower, and through the different storms had to deal with
16 different significance of outages.

17 We had minor damage to pole -- minor to significant
18 damage to pole and wire failures, of course, naturally,
19 dependent on where the storms landed throughout our state. But
20 we found by far the responses that we received the majority of
21 that distribution damage, just like as has already been shared,
22 came from trees or tree limb failures of surrounding vegetation
23 by and large. I know in Lakeland we experienced that,
24 especially in the easements, between property lines in our rear
25 lot easements where growth had just taken over, and where you

1 have got trees in close proximity that, once again, you
2 couldn't get to to remove the tree. But we could do some
3 trimming in the neighborhood. You have seen already several
4 pictures of how they can fail and cause damage in those kinds
5 of events. One bullet I did not put up here, of course, that
6 is impactful to us that we found out was wind load damage, of
7 course, we did have that significantly.

8 Others mentioned by other members were some lightning
9 damage to facilities of burning down wire, some pole failures
10 attributed to successive storms, just the softening of the
11 earth. You know, had they been spread out, we weren't quite so
12 waterlogged, maybe the wind damage might not have been quite so
13 severe in some cases and caused further damage to distribution
14 facilities. And we had some reporting, of course, vehicles
15 striking poles.

16 Underground systems, however, by and large faired
17 fairly well, other than flooding, as has already been
18 mentioned, also, that you would expect, and we did also
19 experience in coastal and low-lying areas, and also as trees
20 failed, uprooting some of those underground facilities. They
21 are not always immune from failures.

22 Substations, as was reported by most utilities, we
23 had very little trouble with. Very little debris issues,
24 nothing of any huge significance. Some of the specifics
25 reported were Keys Energy lost a transformer, a load tap

1 changing transformer that was flooded and a 138 kV breaker
2 bushing flashover from salt contamination. Of course, they
3 suffer from severe salt contamination issues there.

4 Jacksonville Electric Authority had three substation
5 transformers that failed after the fact that they attributed to
6 the damage incurred by many reclosings into faults during the
7 storm events themselves, but didn't actually fail until a week
8 or so after some of the storms had passed through. And Vero
9 Beach had significant substation switch gear damage from water
10 intrusion that was very significant according to their size of
11 utility. But overall the substations held up very well.

12 For many of us, we finally got to experience the
13 value of mutual aid agreements. We participate in both the
14 Florida Municipal Electric Association and the American Public
15 Power Association mutual aid agreements that were in effect and
16 utilized. They are administered and coordinated through the
17 FMEA Executive Director, Barry Moline, who is here today, and
18 the mutual aid coordinators, to which the requests come from
19 the utilities needing aid as well as you also respond, as the
20 utility, identifying what crews, what help you have available
21 to send, and they coordinate those activities. We also work
22 closely with electric cooperatives and invest-owned utilities,
23 and, in fact, also supplied Florida Power and Light with some
24 out-of-state crews that were municipal crews.

25 Lakeland received aid from not only Florida

1 utilities, but municipals as far away as Texas, Kansas, Ohio,
2 Wisconsin, and New England. And, of course, as you saw the
3 tracks of these storms that came up, many of the closer states
4 could not commit, because it was headed their direction. But
5 we were very grateful for the assistance that we received from
6 the outside sources. We actually tripled our work force to
7 restore after Jeanne, we had some 300 line clearance personnel
8 brought in, and an additional 200 line workers brought in to
9 help us recover from that.

10 Just an example of the mutual aid agreement we have,
11 and this is a pretty simple document that basically outlines
12 how aid is to be requested, and that it is administered solely
13 at the discretion of the aiding party. And it defines how
14 invoicing and how the rate guidelines are going to be used for
15 returning the payment.

16 It is not only important to make the repairs to
17 restore customers, but for a larger goal, good is to do more --
18 is also to do the repairs according to the utility's standards
19 and that is on the next slide, please. And I think this is an
20 issue all utilities deal with when they bring in external
21 crews. You know, I think it's a specific question asked of us
22 also. We attempted to utilize our personnel to guide visiting
23 personnel to make sure our standards were upheld so we didn't
24 have to go back and do a bunch of post-storm rework of things
25 that were done. As I mentioned, it's important to get the

1 customers back in service, but we would rather do it right the
2 first time. And so we quickly find out that the best use of
3 our personnel, especially when we got into bringing in that
4 many additional external crews, is to use them to guide our
5 personnel and to have them using the proper construction
6 standards.

7 Some reported performing post-restoration inspections
8 to check reconstruction and make additional corrections
9 after-the-fact. You know, depending on how badly they were
10 impacted, some of them went back and reviewed more than one
11 time, rode circuits out to make follow-up reviews of how -- to
12 try and catch things that weren't caught before. I think we,
13 as all utilities, also saw many residual effects the following
14 weeks and months after storms as things continued to fall. I
15 know we certainly experienced that. But you try and catch as
16 many of those things ahead of time as possible. All utilities
17 supplied most of their own standard material for their repairs
18 and, once again, that helped keep it within our standards.

19 Concerning vegetation management and discussing our
20 routine distribution maintenance practices, most members
21 reported having a three-year trim cycle throughout their
22 distribution systems. Keys Energy is limited to a six-month
23 growth trim by local ordinance, so they were under a little
24 different constraint there. Tallahassee has an 18-month cycle.
25 And some like Gainesville and ourselves include service drops.

1 Not everyone reported also trimming for service drops on their
2 routine distribution maintenance.

3 Of course we do, in addition to the directional
4 pruning, we use herbicides and growth retardant, trim a four or
5 six-foot clearance, varying a little bit by utility there.
6 Danger trees are certainly removed where possible. And I will
7 agree, too, as statements have already been made that we have
8 had a little bit more latitude in doing that as a result of the
9 last couple of years with people not being quite so interested
10 in saving that old historic tree that is sitting there beside
11 our facilities, and allowing us to sometimes go further as we
12 ask permission to trim even outside of our easements, if we see
13 danger trees, and they let us do that.

14 Outage data is used by many to target locations. And
15 there was one mentioned by one of our members that there ought
16 to be some discussion, possibly with joint tree-trimming with
17 telcos, that would be beneficial. We spent some time talking
18 about certainly joint use today and some of the
19 responsibilities there are.

20 Routine management on transmission systems has most
21 municipals maintaining an annual inspection trim cycle.
22 Jacksonville Beach and Gainesville inspect semiannually, and
23 most are trimmed to 10 to 15-foot clearances was mentioned
24 today, too, and that is primarily the 69 kV transmission and
25 above.

1 Post-storm inspections. Most utilities were
2 inspecting the vegetation, of course, as part of the system
3 restoration inspection of outage areas. We found this to be,
4 you know, certainly something we had to do. Given that trees
5 were the majority of what our issues were, the causes for the
6 distribution outage, we had to make sure we were considering
7 them as we went along. Some dependence on severity of storm
8 event being that, you know, if it was just very localized
9 areas, they certainly didn't go back and do too much in the way
10 of follow-up inspections. So it just depends on how severe the
11 storm was, how severe the particular utility that was hit by
12 the storm had some bearing on their post-storm inspection
13 routines, too.

14 Keys Energy and Jacksonville Beach inspect all
15 transmission and main circuits, as well as some others did,
16 too, but they highlighted that. All municipals conduct pole
17 inspections. Most are a five to eight-year cycle. Some
18 mentioned that they included conductors and connections to the
19 extent possible. They weren't really specific with the short
20 time we had to turn around exactly how all of that was
21 accomplished, but visual inspections as much as possible. It
22 wasn't mentioned if they did infrared inspections, or whatever,
23 but as much as possible, without inspecting the poles, they
24 were also inspecting what they could visually with the
25 hardware. Tallahassee conducts pole-by-pole inspections of

1 circuits with the highest number of interruptions, so they used
2 some data, once again, to help drive them in their inspection
3 routine.

4 Undergrounding. Florida's municipals have discussed
5 undergrounding with their communities for years, for many
6 years. Citizens appreciate learning the pros and cons of that.
7 And, of course, it is a little bit of a challenge sometimes to
8 get them to understand some of the cost differences, but we
9 certainly think it's our part as utilities to educate them in
10 that way and try and just be as up front with them as we can.

11 Undergrounding does not solve all the hurricane
12 outage problems. We have already mentioned some of the issues
13 about uprooting that lead to that, flooding, those issues, and
14 even in the normal situation, underground may be immune from a
15 lot of the problems, but when it does have outages, they need
16 to understand it takes longer to find where those outages, and
17 repair where those outages are.

18 We have certainly found out as everybody has
19 experienced that many citizens when we start discussing who is
20 going to pay for this and the relative cost of undergrounding,
21 especially existing electric facilities, that many are very
22 reluctant to pay for the cost of that conversion, even with
23 cost sharing.

24 Some utilities are considering converting overhead
25 lines to underground. And to name a few that have mentioned

1 that specifically, Winter Park, who is really a brand new
2 municipal electric utility as of last year is beginning a
3 selective conversion in certain locations to underground. Vero
4 Beach is converting aging lines when justified, and
5 Jacksonville Beach has said they are in the process of
6 converting all overhead within three blocks from the ocean.

7 Others of us are taking the opportunities, as we
8 continue on, to discuss that with our customers. We felt like
9 there is probably a whole lot of initial push on the issue of
10 undergrounding and will continue to be. But it is that
11 discussion that we have already had several discussions today
12 about that that cost, and the true cost, and the total cost
13 that we need to come up with, so we can represent that fairly
14 to the customers and to ourselves as to who is ultimately going
15 to be paying the price for that.

16 Design changes. Now, some of the design changes that
17 will further harden our systems include additional movement to
18 spun concrete or steel poles and higher wind loading ratings
19 where that hasn't already occurred. Many of our municipal
20 utilities have already started doing that. Some selectively in
21 transmission and main line distribution areas, others have
22 targeted even other facilities for that. Kissimmee says not
23 only some main line, but also distribution with three-phase
24 banks or three-phase risers. So selectively targeting certain
25 areas that are harder to replace if those facilities fail and

1 they take longer to restore customers.

2 Over-insulating substation tie lines to reduce salt
3 intrusion. Of course, that is an issue with outages near the
4 coast, largely. Winter Park is installing additional switches,
5 three-phase gang-operated switches to speed sectionalizing, and
6 initiating the underground program that I already mentioned
7 earlier. Some relocating of rear lot easements to the street
8 right-of-ways. That is very difficult to do, as has already
9 been discussed somewhat today, also. But where that can be
10 practically done and economically done and justified for
11 various reasons, that is being looked at by some of our member
12 utilities.

13 Key West had some very specific things that they have
14 done in their design practice. They have increased their
15 wind-loading design to 165 mile per hour plus, using more
16 concrete poles, and eight-hour battery backup for traffic
17 lights. Traffic lights, of course, are certainly a safety
18 consideration in restoring power and the aftereffects of a
19 storm. And using more stainless steel hardware at some
20 locations just to make sure for the life of the facility that
21 they have better service.

22 Additional design changes. Several have shortened
23 their pole and line clearance inspection cycles. We mentioned
24 the cycles that were there, but some of them have readdressed
25 that that weren't within those time frames, and have added more

1 line clearance crews. Several have become more aggressive with
2 removing and topping danger trees, as I mentioned before.
3 Customers are more willing to agree with clearance activities,
4 and we already discussed that a little bit.

5 The majority experienced few repair material
6 shortages, but some storm stock inventory levels have been
7 adjusted based on the experiences. We really did not have
8 significant issues with running out of materials. And
9 everybody generally has storm stock. But some of us, where we
10 found areas, especially in certain key splice sizes for wire
11 that we had a lot of trouble with, we have changed some of our
12 storm stock inventories to adjust for that.

13 And, of course, we have got vendor alliances that are
14 occurring. We have vendors that are stocking materials for us
15 that are part of that in some locations. Several reported
16 emergency operation plan changes with lessons learned,
17 including helping us respond after the fact. Revised personnel
18 assignments, train substation or meter personnel to assist the
19 T&D personnel. Just to make sure, if they haven't already done
20 that, that they had more personnel to help respond, to do
21 assessment, and to do simple activities. Using retired
22 personnel for the same purposes. Those that had that kind of
23 knowledge that were still in the area and willing to come back
24 to work, find ways of putting them back to work under these
25 emergency situations.

1 And making an earlier determination of mutual aid and
2 contract crew needs and securing logistical needs. I know
3 Lakeland kind of had a wake-up call with that ourselves. As I
4 mentioned, the storms got succeedingly worse from Charley to
5 Frances to Jeanne in 2004, and we learned some things in
6 Charley that as we started looking, we called it -- we handled
7 Charley internally. Frances we called a few external crews in,
8 but we started to recognize real quickly how quickly they
9 disappear. How they get themselves obligated, if you don't
10 make those phone calls early. And then addition needs, of
11 course. The logistics of the hotel rooms, the feeding, the
12 ice, just all those kind of supplies to make sure that you had
13 the right facilities there to take care of them.

14 We learned a lot of lessons. We, too, are trying to
15 put those lessons in place. And we certainly welcome the
16 lessons learned from other utilities as we get to hear more
17 about what they have had to say, what they go through, welcome
18 the actions of the PSC that's coming forth through these
19 processes. And we certainly -- our ears are open, also, to
20 help our utilities serve our customers better in the future as
21 a result of what we have learned through these storms.

22 MR. TRAPP: I just have a couple. First, just from a
23 rhetorical standpoint, let me speak as a Tallahassee resident,
24 and ask you since you are here representing Tallahassee today,
25 you're not going to cut down my live oak, are you?

1 MR. SHAFFER: Where is that live oak?

2 MR. TRAPP: I mean, it's right on the road
3 right-of-way, and it beautifully arches over all the lines, and
4 we haven't had any problem with it. Now, you can take all the
5 water oaks and the sweet gums you want, but please leave my
6 live oak alone.

7 MR. SHAFFER: Well, live oaks did fare better. They
8 are stronger than some of the other varieties, but I can't
9 speak for Tallahassee in that regard.

10 MR. TRAPP: I bring that up, because this morning we
11 had a suggestion from a local mayor that there needs to be more
12 cooperation at the local community level between local
13 officials and the utilities in the decisions that are made with
14 respect to vegetation control and undergrounding and things of
15 that nature.

16 I imagine since you represent the municipalities
17 which are pretty well embedded in the local community, that
18 some of the variances we see with respect to tree trimming,
19 like Tallahassee's 18-month cycle, have to do with certain give
20 and take and feedback.

21 MR. SHAFFER: Certainly. It is kind of interesting,
22 even between city departments we have found ourselves at odds
23 with trees. Parks and rec, our parks and rec department has --
24 we have adopted standards with them about what trees were
25 acceptable to be planted underneath the power lines and what

1 weren't, and they promptly ignored those in some locations. We
2 have had to go back and have some further discussions with
3 them.

4 And then we have got community development and others
5 that certainly are trying to develop, they are now talking
6 about canopy roads, and all of that. Now, that is in new
7 developments that are underground anyway, because all of our
8 new developments are -- presently all of them, almost without
9 exception, are going in underground because we participate with
10 the developers in that. And we put them in without any
11 additional cost as long as they put in the conduit
12 infrastructure.

13 But that's a balancing act. Trees are an issue. And
14 I, myself, love to see them there, but they do cause problems
15 under storms conditions like this. So we have got to make
16 reasonable approaches. What is appropriate.

17 MR. TRAPP: I notice, again, that you have some
18 varying policies around the state in your member
19 municipalities, and I pose this to you from an investor-owned
20 utility side where they cover large geographic areas of the
21 state. Does it make any sense, where rational variance is
22 required, that to the extent that it is cost-effective that it
23 be permitted? But should we also be exploring alternative
24 pricing, ratemaking, funding mechanisms such as -- like
25 franchise fees, for instance, vary around the state. And I

1 think the Commission rules call that they be collected directly
2 from the community which caused them to be incurred based on
3 the rates that are different in different parts of the state.

4 Would it make any sense for us to look at different
5 ratemaking schemes, if we declare a zonal hardening area, that
6 maybe the cost to support that zonal hardening should be
7 supported in that particular area as opposed to being spread
8 over the entire rate base?

9 MR. SHAFFER: It seems to me like that would be
10 the -- most of our ratepayers or our owners would probably see
11 that as being the right approach to take. You know, not
12 penalizing the ones that didn't have so much of the issue or
13 the concern or the troubled areas, and more applying that more
14 locally to the troubled areas as a source of funds to handle
15 those.

16 MR. TRAPP: Let me turn now to the universities and
17 ask you do you get any assistance from the data that is
18 produced by our university research teams?

19 MR. SHAFFER: I'm not aware. I know Lakeland has
20 not -- other than passively reading some of that information
21 and having some interest in it, some of it I wasn't aware of
22 until I started seeing some of the presentations today, and as
23 they appeared earlier at the website. We are not in a position
24 really to have the staff, I think, to dig into some of that
25 type of data analysis that maybe some of the larger utilities

1 would, but we certainly have a lot of interest in the final
2 results that they are coming out with and the end effect of
3 that information.

4 MR. TRAPP: Thank you.

5 MS. HELTON: Mr. Ballinger.

6 MR. BALLINGER: We've got one from the audience. I
7 know you have got a plane to catch. What kind of cost sharing
8 arrangements do you or your members offer to your customers?
9 And I presume this would be more for retrofits than it is --
10 because you said that new construction is primarily 100 percent
11 underground. So I guess on retrofits or whatever, what kind of
12 cost-sharing arrangements do you work out with some of your
13 customers?

14 MR. SHAFFER: Nobody reported actually to having done
15 that yet. So Lakeland, and I can only speak definitely for
16 them, several years ago we did have an undergrounding program.
17 We were actually allocating a million dollars a year. And even
18 with the city -- even with the utility funding some areas
19 downtown, kind of in an older section, historic section that we
20 started to underground, we still had people that didn't want
21 those boxes in the front of their yards. They wanted the line
22 still in the back, and they didn't have a problem with that.

23 The conversations that we have personally had when we
24 started talking ballpark ranges of 2 to 3 to \$4,000 per lot for
25 conversion costs, tended to stifle that conversation real

1 quickly. We did not intend to continue on with that project at
2 this point, especially with the present situation Lakeland
3 finds itself in budgetarily, that we could not continue to do
4 that. We cut off the million dollar funding several years ago,
5 that annual funding.

6 So it would be our plan to present to our Commission,
7 anyway, for acceptance, if you were going to proceed with that,
8 that it be 100 percent funded by those that were actually going
9 to undergo the conversion, the residents that were actually
10 going to undergo the conversion. I can't speak, because I did
11 not have any responses that I saw, from the other member
12 utilities of the same thing, how they were cost sharing and
13 their experience was.

14 MS. HELTON: Mr. Shaffer, thank you very much for
15 coming today. Thank you also for gathering information from
16 your sister municipal utilities. It was very helpful.

17 MR. SHAFFER: Thank you very much.

18 MS. HELTON: Next we are going to hear from Paul
19 Davis with Tampa Electric.

20 MR. DAVIS: Good afternoon. Again, my name is Paul
21 Davis. I am Director of the Energy Control Center at Tampa
22 Electric Company. My presentation is somewhat brief. I'm
23 going try to cover a summary of our 2004 and '05 storms, our
24 restoration process that we go through, our vegetation
25 management program, and the pole inspection, since that was an

1 area that staff zeroed in on on the questions, and mitigation
2 options.

3 Before we move to the next slide, actually you can go
4 ahead -- before we move to the next slide, I want to talk a
5 little bit about an overview of Tampa Electric Company. We
6 have about 650,000 customers, around 10,500 miles of
7 distribution wire, about 1,200 miles of transmission lines, and
8 about 240,000 distribution poles, about 23,000 transmission
9 poles, of which 75 percent are wood and the balance are either
10 concrete or steel.

11 One interesting note about our distribution system is
12 that approximately 75 percent of it is overhead and
13 approximately 25 percent is underground. As far as
14 installation goes, it is just the opposite way around, about 25
15 percent is being installed overhead and about 75 percent is
16 being installed underground.

17 A quick overview of our system also. We design our
18 entire system to NESC Grade B, always have done that, and we
19 also adopted a concrete pole standard for relocation and new
20 construction in the early 1990s.

21 You have seen this slide before. This is the
22 hurricane paths. It's kind of well-worn. Charley affected our
23 Polk County service area. It took out around 95 percent of the
24 customers in that county that are in our service area. We had
25 some damage in southeastern Hillsborough County in the Mulberry

1 area. With Frances it was a long slow storm, we had
2 significant damage. We had about -- in excess of 200,000
3 customers out, about 40 percent of our system. With Ivan, we
4 had some residual outer band type issues, but nothing too
5 significant as far as storm.

6 It is interesting to note, though, that while Ivan
7 struck the panhandle the following week, it was very hot in
8 Florida. There were natural gas issues and some difficulties
9 serving the load. With Jeanne, which came shortly after, it
10 again affected our entire service area. It was a little
11 stronger than Frances and, again, we had around 40 percent of
12 our customers out.

13 As we move on, this is just a quick graph of the
14 number of customers that we had out. I kind of covered a
15 little bit of this. Ninety percent restoration we reached in
16 three days for Charley, in three days for Frances, and five
17 days for Jeanne. It's interesting to note that with Jeanne we
18 really had a problem, and really the entire state had an issue
19 where Ivan had just struck the panhandle, a lot of the
20 resources were tied up in Ivan. And Jeanne, if you recall,
21 Jeanne was going to just skirt the east coast, and it kept
22 getting pushed over farther and farther. And so it became a
23 real issue for all the IOUs and municipals.

24 What is also interesting to note is that, just to put
25 things in perspective as far as the number of personnel, we

1 have about 200 line personnel, 50 contractors, around 150
2 linemen and troublemen. So you can see the -- and about 150
3 line clearance contractors that normally work for us. So you
4 can see that we have to ramp up a great deal and rely on the
5 mutual assistance process to do that.

6 And another thing that is important to realize is
7 that when you begin to get a situation where you have got to
8 put into play such a large number of resources -- pardon me one
9 second, let me get a drink of water -- you get into a situation
10 where you really exhaust your normal work management system,
11 and gathering data in a situation like this is very difficult
12 after a storm, because you have to abandon your normal
13 computerized process to restore power. And when you do that,
14 you are going through a paper system, at least for us we are
15 going through a paper system where we are doing damage
16 assessments, handing that very same paper to the foreign crews
17 that arrive and saying go and find all the problems in addition
18 to all the problems that are on the maps.

19 So as you begin to try to isolate where was that pole
20 that failed, where was that splice that failed, it becomes very
21 difficult to try to pinpoint that down without manually trying
22 to go through and review your entire system. I just wanted to
23 bring that up very quickly.

24 Highlighting the system damage. We did have
25 significant restoration and outages as I have alluded to, but

1 all in all, as also I failed to mention, we did submit
2 responses to the direct questions. So I could kind of try to
3 hit the highlights in this presentation, but overall, we had a
4 very low failure rate as the other utilities have alluded to.
5 We also experienced minor substation damages. In Charley we
6 had three substations which comprised 1.3 percent of our
7 system. In Frances we had two. One was partially submerged.
8 When Frances exited the Gulf, it began to get a little more
9 strength as it was headed up towards the panhandle, and the
10 southwest storm surge began to effect some of our distribution
11 subs, and we had a partially submerged sub. And in Jeanne we
12 lost one transmission auto transformer and some transmission
13 breakers. But all in all our substations fared fairly well.
14 And I want to highlight that in 2005, again, we were affected
15 in a minor way from the outer bands of Dennis and Katrina and
16 Wilma.

17 Very quickly, some of the highlights on mutual
18 assistance. It has been talked about. We rely on it greatly.
19 As you can see from the numbers, we rely on getting a lot of
20 folks down here. And the agreements and the relationships that
21 we built with folks in the southeast, and then the new
22 relationships we have had to build with even those farther has
23 helped us.

24 The post-storm sweep. In some of the questions there
25 were questions about a post-storm sweep. We viewed the

1 post-storm sweep as the direct question was was there a
2 post-restoration sweep. We did not have the type of damage
3 across our system that we felt like we had to go and do a
4 post-restoration sweep. We did do a post-storm sweep in that
5 we dedicated our field engineers out there to go pole-by-pole
6 and down to every service to determine where the damage was and
7 they marked those up on the maps.

8 There was also some questions about standards. As a
9 result of our experience in 2004, we also beefed up our
10 inventory and substantially raised the number of associated
11 storm equipment that we needed to have in place. All of those
12 materials were approved ahead of time to meet the NESC
13 standards, so there were no as-available type issues with the
14 restoration process. And we had done that in -- I mentioned
15 that we beefed it up in 2005, but even with our 2004 response
16 we were able to get adequate supplies and inventory in place to
17 where inventory was never an issue for us.

18 Another issue I wanted to highlight real quick that
19 was in the questions was about temporary repairs. As far as
20 temporary repairs go, a part of our restoration process is that
21 we assign a Tampa Electric person for every two or three crews.
22 And as that Tampa Electric typically lineman is riding around
23 with those crews, he is looking to make sure that they are
24 making permanent repairs and not temporary repairs. If
25 temporary repairs are made, then it is documented in our work

1 management system so that our own crews can follow up later.
2 But all in all very, very few temporary repairs were made, and
3 all the material that the linemen, the foreign crews were using
4 were coming out of our storage facility.

5 One of the processes and changes that we made through
6 our lessons learned was that with Charley, and it was a fairly
7 strong storm, we adopted a reclosing scheme to where we
8 disabled our normal reclosing scheme that we used day-to-day
9 for storms, and we disabled that so that as the storms begin to
10 move through the system, if something took a line out, it
11 became de-energized. So, as more and more problems occurred,
12 as trees fell over the wires weren't burning together and
13 burning in the clear and causing more damage. We found that
14 that worked very well for Charley. It was a Cat 2 by the time
15 it came through Polk County. Even though we lost the majority
16 of our customers, we found that we were able to quickly assess
17 where the problems were, get the issues cleared up, and to have
18 a fairly quick restoration time.

19 With Frances, since it worked well with Charley, we
20 approached the same type of reclosing scheme for Frances.
21 Frances was a Cat 1 storm as it came through Hillsborough
22 County and parts of Polk County, and we found that it didn't
23 work as well. Because we had such widespread outages, we found
24 that there were a lot of circuits that had very minimal damage,
25 and it slowed the restoration process a little bit in trying to

1 determine and find where all the problems were. Those are
2 lessons learned.

3 When we came to Jeanne, we reinstated the reclosing
4 scheme, and even though Jeanne was a slightly stronger storm,
5 we just had a slightly few more customers out. And my belief
6 is that if we had disabled that reclosing scheme, we would have
7 had more customers out and a tougher time.

8 I want to go ahead and move to the text one. I want
9 to talk a little bit about vegetation management and pole
10 inspection, our annual program. First of all, with vegetation
11 management, our transmission program, we annually inspect our
12 entire transmission system. That complies with the balloted
13 NERC standard that is being proposed. On our distribution
14 system, it's a reliability-based program where we take the
15 circuit performance on a circuit-by-circuit basis, and we run
16 that through a formula that is comprised of SAIDI, MAIFI,
17 tree-related outages, and the time since it has last been
18 trimmed, and that allows us to focus in on the worst performing
19 circuits and get those cleared up so that we have a better
20 overall SAIDI day-to-day.

21 On our annual pole inspection program we have a
22 ten-year pole inspection program, and there's two programs;
23 there is a transmission program and a distribution program.
24 The ten-year distribution program is a full excavation around
25 the pole, sound and boring test, and then any sort of

1 remediation that has to happen with the pole. In some cases we
2 determine that those need to be replaced, and they are
3 replaced. In others we can brace those, and then when we brace
4 them they are braced to a standard that is -- or at least to a
5 strength that is higher than the original pole installation.

6 And our ten-year program is comprised -- if you have
7 questions about that program, T.J. can probably speak to more
8 of the details, but it includes climbing and aerial and a
9 number of other types of inspections for our transmission
10 system.

11 Our storm response. As far as our annual -- our
12 storm response is part of our vegetation and pole inspection.
13 Our storm response for pole inspection is not as comprehensive
14 as our ten-year program. We are looking for structural
15 problems with the pole. We are looking at all the hardware on
16 the pole. Broken cross arms, broken braces, blown pieces of
17 equipment like lightning arrestors and things like that. We
18 are looking at what may be causing the outage and what may
19 potentially cause an outage later, and we are identifying those
20 issues.

21 The storm response crews, especially with the line
22 clearance storm response, those folks are looking to cut the
23 vegetation in the clear. And our typical annual program, we
24 usually get about ten feet of clearness on our distribution
25 system. These folks that are down here on storm response don't

1 have the mulching equipment, they don't have a means to dispose
2 of the vegetation. Those folks are cutting enough to get the
3 wire back up, and if there are issues where the circuit has got
4 issues, we are taking that input from those foreign crews and
5 addressing that in our annual program. But their main focus is
6 to trim enough to get the wires back up.

7 Potential mitigation options. We have kind of
8 covered some of these that we have already put into play, the
9 inventory, the system enhancements, the maintenance practices.
10 One of the things that we realized this past year, in our 2004
11 and '05 performance of our annual reliability, and also we
12 realized from our storm was that we needed to increase our
13 maintenance practices. We increased our vegetation management
14 program by 5.5 million. We are nearly doubling our substation
15 preventative maintenance program. We are taking a number of
16 steps to increase maintenance that I think is going to both
17 help us in our day-to-day reliability and also help us with
18 these storm issues.

19 You know, I don't want to belabor some of the same
20 points, but vegetation management is an issue. We need to find
21 a way to work cooperatively with the municipalities that we
22 serve, with the counties that we serve to get the adequate
23 clearance. We do things in somewhat of a permissive fashion in
24 our annual program. We go door-to-door, we hang door hangers,
25 we ask people to call us if they have issues, and then we work

1 with customers to the best of your ability to allow us to get
2 the trimming that we need. And more legislation to make that a
3 little stronger can certainly help.

4 And then some of the same options that have been
5 brought up, undergrounding standards. I'll answer one of the
6 questions that I know Bob is going to ask already about
7 universities. One of the studies that we participated with the
8 University of South Florida was undergrounding, doing a
9 retrofit undergrounding of our Davis Island, which is just
10 south of downtown. We participated with USF and with the local
11 community to come up with a cost estimate to do that. So we do
12 participate with both the local community and universities
13 where we can.

14 And that pretty much concludes what I had on the
15 formal part of the presentation.

16 MR. TRAPP: You got two of them, but I've got a
17 surprise one for you. Were you here when David McDonald made
18 his presentation.

19 MR. DAVIS: Yes, sir.

20 MR. TRAPP: Do you remember the chart he put up about
21 Pinellas County and the projected title effects. Have you done
22 anything similar to the Tampa Bay area.

23 MR. DAVIS: I have looked at the FEMA maps. And from
24 what I recall, the same issues apply in the Tampa Bay area,
25 especially with the way the Tampa Bay area is configured. If a

1 hurricane like Charley was headed or were to come right up the
2 mouth of Tampa Bay, it pushes the water up into Tampa Bay. And
3 Davis Island, for instance, would be one of the areas that
4 would be completely submerged. A lot of the inner bay area, if
5 you are familiar with Tampa south of Kennedy, that area would
6 be submerged, especially for lower level hurricanes. All along
7 the Rocky Point town and country area of Tampa would be
8 submerged, along the eastern Apollo Beach area. It would
9 inundate quite a bit of Hillsborough County.

10 MR. TRAPP: How many areas within Tampa's service
11 area might not be affected by floods and might be candidates
12 for underground zones?

13 MR. DAVIS: Well, I think that is best answered by
14 pulling up that storm surge, the slosh model that wet
15 forecasters have put up, and we can certainly supply that so
16 that you can see the percentage of the system.

17 MR. TRAPP: Is that model generally applicable for
18 the state as a whole?

19 MR. DAVIS: I'm not a meteorologist, but I have seen
20 certain key urban areas modeled, like Pinellas County, like
21 Hillsborough County.

22 MR. TRAPP: The reason I asked is I missed my
23 opportunity to specifically ask Florida Power and Light this
24 question, and maybe I can invite them to give me some input
25 with respect to the result of that model on what areas would be

1 affected by tidal surges, by category of storm as Progress has
2 so adequately provided.

3 Thank you.

4 MR. DAVIS: Sure.

5 MS. HELTON: Mr. Ballinger.

6 MR. BALLINGER: We have got one. Actually it's two
7 questions. Did you say balloted NERC standards?

8 MR. DAVIS: Yes.

9 MR. BALLINGER: And I presume balloted means the NERC
10 standards go through a voting process of its members, that is
11 what you meant by that?

12 MR. DAVIS: That's correct.

13 MR. BALLINGER: And when you do your pole
14 inspections, how do you keep track of the status of each pole
15 inspection over the ten-year period? Is there some kind of a
16 tracking thing, and is that available?

17 MR. DAVIS: There is a data base of information that
18 we keep track of when the poles are inspected. We typically
19 contract that out to a contractor who specializes in that, but
20 we keep a database of all the poles, what was found. And then
21 the poles that have to be remediated especially by Tampa
22 Electric crews, as in pole replacements, those enter our work
23 management system, we categorize those into two areas, poles
24 that immediately need to be replaced and those that have a
25 six-month to a year time frame.

1 MR. BREMAN: Just to do a little follow-up on the
2 pole location information. Do you have -- in your asset
3 management database you have pole specific information on 100
4 percent of your poles?

5 MR. DAVIS: Yes.

6 MR. BREMAN: And all that data is tracked. Does that
7 information also include your collocation issues?

8 MR. DAVIS: No. No, it does not. The collocation
9 issues, periodically we conduct pole audits. As was mentioned
10 by previous speakers, the main purpose up until now has been to
11 identify situations where there have been unauthorized
12 attachments and collect the revenues for those, so we do have
13 pole audit data from previous years. We typically do that
14 every three to five years. Did that answer your question about
15 whether or not we have the data?

16 MR. BREMAN: Yes. I was curious about it. I was
17 just wondering how close you were to the 20 percent of people
18 attaching to your poles and you don't know about it.

19 MR. DAVIS: I'm not sure about that data. I'm not
20 sure if Regan has an answer to that.

21 MR. HAINES: The 20 percent number is something I
22 really can't validate. We would have to go back and look at
23 data and probably have to go through a new pole audit to
24 specifically look at what percentage are unauthorized, or go
25 back to the last one, which is about three years ago, to see

1 what that number was.

2 MR. BREMAN: Do you take these people to court or
3 what?

4 MR. HAINES: No. Usually we go ahead and work out
5 the issues with the joint users.

6 MR. BREMAN: Thank you.

7 MR. McNULTY: I have a question that has to do with
8 the inspection program, the ten-year inspection program that,
9 as you mentioned, is pretty complete, and you have a database
10 behind that. So I guess what I'm wondering is is there some
11 things that the company has found about specific subpopulations
12 of poles that would lead them to indicate that either in the
13 past they have decided to replace a certain type of pole of a
14 certain vintage, or a certain type, say a creosote pole,
15 anything along those lines, that you have learned from this
16 database that said, you know, it is cost-effective, the smart
17 thing to do to replace a certain type of pole?

18 MR. DAVIS: Well, you just reminded me of an answer
19 that I answered incorrectly about every pole. Let me qualify
20 that. It just occurred to me that we generally are targeting
21 CCA poles that are greater than 20 years old, because CCA poles
22 have a very long life expectancy. So we are looking at the
23 installation date of the pole. And if it is less than 20
24 years, we are not inspecting those because we have found that
25 there is really no reason to inspect those. So we are looking

1 at CCA poles that are older than 20 years old. We are looking
2 at creosote poles and the various poles that we target, the
3 other types of poles, wood poles that we have on our system.
4 And what we have found from that is that the types of failure
5 rates, and I don't have the numbers here with me offhand, but
6 the types of failure rates do justify us to continue with a
7 ten-year cycle. We have found that that seems to be the best
8 frequency, based on what we are finding as far as failures due
9 to rot and decay of the pole.

10 MR. McNULTY: Okay. And is there a specific type of
11 pole that you found that just didn't pass muster and needs to
12 be replaced, or a certain year, a certain vintage, anything
13 along those lines of a decision made from that review of that
14 data?

15 MR. DAVIS: Not that I am aware of.

16 MR. McNULTY: And when you say you have a ten-year
17 inspection cycle, that's a ten-year inspection cycle of just
18 those poles that are older than 20 years old?

19 MR. DAVIS: Right. And those new poles that have
20 entered into the time frame where they are older than 20 years
21 old.

22 MR. McNULTY: Thank you.

23 MS. HELTON: Thank you, Mr. Davis.

24 MR. DAVIS: You're welcome.

25 MS. HELTON: We are ready to move on now to Christie

1 Miree with Gulf Power.

2 MS. MIREE: Good afternoon. My name is Christie
3 Miree. I am the Power Delivery Services Manager at Gulf Power
4 Company, and I would just like to start by saying that we
5 really appreciate the opportunity to come here today and to
6 participate in this worthwhile workshop. And we look forward
7 to the continuing sharing of information between all of the
8 parties and hope to improve our processes going forward.

9 I'll give you a little bit of background about Gulf
10 Power. Our size, we serve about 400,000 customers, and our
11 service area ranges from the Alabama state line on the west
12 over to the Apalachicola River on the east. So we serve
13 basically the panhandle of Florida, and most of our customers
14 are in coastal areas that are subject to storm surge and salt
15 water intrusion.

16 We are part of the Southern Company. Even though we
17 are a Florida utility, we do have the benefit of learning from
18 the experience of the other Southern Company utilities, and we
19 do have the benefit of their assistance when we are impacted by
20 a storm. We are a relatively small company, so having other
21 companies to draw upon for resources when we are impacted so
22 heavily has been be a great benefit to us.

23 As part of the Southern Company, we also have a
24 communication division, the Southern Link, which has provided
25 us communications at a time when those are often hard to come

1 by. So the wireless affiliation has been a benefit that we
2 have seen, as well.

3 As part of the service area, being in the Florida
4 panhandle, one of the benefits is that we do have access, which
5 is a little bit easier than some of the south Florida
6 utilities, where we are accessible from the north and the west
7 as well as the east. And this aids not only in the evacuation
8 of our customers, but also in moving crews and materials and
9 other resources in to assist us.

10 A little bit about what we experienced in the '04 and
11 the '05 season. Our system, as I mentioned, serves about
12 400,000 customers. We have about 1,600 miles of transmission
13 lines, 7,200 miles of distribution lines, and about 20 percent
14 of our distribution system is underground. We have about 126
15 substations, and within our distribution system we have about
16 250,000 distribution poles.

17 Some of the damage that we saw during Hurricane Ivan,
18 and primarily our area was impacted by Hurricanes Ivan and
19 Dennis. We did experience some other storms. We experienced
20 tropical storm force winds from Hurricane Katrina, we also had
21 several other minor tropical storms, Arlene and Cindy to name a
22 couple, but I'm primarily going to focus on Ivan and Dennis.
23 Ivan was part of the '04 season, Dennis was part of '05. Ivan
24 was a much larger storm and much more widespread. Dennis was a
25 very strong storm, but it was very compact, and so the amount

1 of damage was much more localized.

2 During Hurricane Ivan, we had about 1.6 percent of
3 our distribution poles were damaged. During Dennis it was less
4 than one-half of a percent, about .3 percent. And, as I
5 mentioned, Dennis was just a much more compact storm. It was
6 very strong in the area of impact, but just a much smaller
7 width.

8 I have a few slides that may demonstrate a little bit
9 of the damage that we saw to kind of give you an impact.
10 Several of the other speakers have mentioned that they
11 primarily saw a wind impact from their storms. We experienced
12 both impact from the winds, hurricane force winds, and the
13 storm surge. And the storm surge impact was very substantial
14 to our underground system along the coast. So I have just a
15 few slides to show a little bit of the storm surge impact on
16 the underground system.

17 Most of what we saw, the damage was caused by wind,
18 but primarily the debris and the trees that were toppled from
19 the wind, so a lot of the damage was from the debris that was
20 encompassed within the wind. When we talk about the
21 underground and the damage to the underground system, as you
22 will see in some of our slides, the storm surge is part of it,
23 but there is also a great deal of the damage that can occur to
24 the underground system after the storm when we begin the debris
25 removal process.

1 As you are all aware, after the impact there is so
2 much debris on the side of the roads. Homeowners are trying to
3 restore their lives back to normal. And those large debris
4 piles of vegetation and just construction debris often cover up
5 our underground system. So as the removers come through to
6 take that away, they may accidentally take our pad-mounted
7 transformers and other switch gear along with it.

8 In this area, you can see the area that's circled is
9 a cable-crossing pole and a regulator station. The water at
10 the bottom of the picture is actually on the sound side, so
11 this is in the protected waters, and the line of our coastline
12 changed by probably 50 feet here. You may also notice in the
13 background along the road we do have several of our
14 distribution poles that are still standing. And at the very
15 top, under the word Navarre, you may notice a little path
16 between the condominiums there. In one way that path allows
17 the storm surge to come through and provide additional damage
18 to the system, but in another way the condominiums somewhat
19 protected the poles that are still standing. So it is hard to
20 say exactly which methodology provided the greatest amount of
21 protection in this particular situation since both of our
22 systems did sustain damage.

23 And also, you may note, at the top of that picture
24 there is a construction trailer. That is one of the things we
25 would classify as debris that is floating around, or being

1 blown around in the midst of the storm that can cause a great
2 deal of damage to both an overhead and underground system.

3 This is an area where we try to use buildings and
4 other natural structures to protect our underground equipment
5 as best we can. But as you can see here, even though the
6 pad-mounted equipment was protected by a building, it still
7 suffered substantial damage. We also have beach construction
8 where we use a lot of stainless steel equipment in the beach.
9 But even with the stainless steel construction, there is
10 substantial damage to that equipment.

11 This is a pad-mounted switch gear that serves a
12 condominium on the beach in Pensacola. And this particular
13 condominium was expanding, was building two additional towers,
14 so they had very large cranes on top of the condos at the time
15 the storm came through. I believe this was Dennis. And one of
16 the cranes came down as part of the storm and landed on top of
17 our switch gear. So this was tremendous damage that I don't
18 think there is any amount of hardening that would have
19 protected the equipment from a large crane falling on top of
20 it.

21 This is another one of our underground switch gear
22 cabinets located out on the beach. This was completely covered
23 with sand. So our first challenge was to find the equipment,
24 and once you find it, determine if it is still intact. And if
25 it is intact, we have to pump the sand out of it, also pump the

1 salt water out of it and make any additional repairs. As you
2 can imagine, when the beach roads are completely covered with
3 sand and you have bulldozers trying to clear the roads as
4 quickly as possible, there can be a great deal of damage to the
5 underground equipment that is buried underneath all of that
6 sand.

7 This is on Pensacola Beach. And one of the things
8 that works somewhat to our advantage in this area is that we do
9 have a very sandy soil. We are not on a coral base, or a rock
10 base. And so in this case you can see there is a tremendous
11 amount of the debris in the road, but many of the poles,
12 because of the sandy soil conditions, would lean rather than
13 snap. And this would allow us to be able to repair those
14 facilities much quicker than had they been underground or had
15 been located in a different type of soil condition.

16 This also demonstrates another important aspect of
17 the Gulf Power service area in that primarily all of our system
18 is located on road right-of-way, and very little rear lot
19 system. This, in one hand, can cause us challenges when we
20 talk about vegetation management in only being allowed to trim
21 what is on the road right-of-way, but on the other hand it does
22 provide us a great ease of access and the ability to quickly
23 get to those facilities with bucket trucks and repair that in a
24 timely fashion. And, as I mentioned, on the beach we do also
25 have stainless steel construction and beach construction in

1 this area.

2 One of the others problems that we encounter in this
3 situation is traffic control. You know, as soon as the storm
4 has passed, many of the customers are trying to return to their
5 homes or trying to survey the damage in the area, and so
6 traffic control becomes an issue for us, especially when you
7 are dealing with facilities that are on road right-of-way.

8 As I mentioned earlier, the underground facilities
9 can often be covered by the debris that is along the roads and
10 streets in our communities. Here, this is an overhead system
11 that we are still able to reach by bucket truck, but we could
12 have tremendous trouble restoring service here, had this been
13 underground and we were trying to get to it.

14 I just wanted to demonstrate with this one. This
15 house was heavily impacted by the storm surge. And if you
16 notice the roof line and the trees in the background, there is
17 very little wind damage, but the amount of surge damage to this
18 home and to the equipment and facilities near this was just
19 tremendous. Most of the debris that you see in the front yard
20 actually washed through the house from the water side and came
21 into the front yard.

22 This is a photo out on Pensacola Beach, and that is
23 what is left of the road and our underground facilities that
24 were out there. You can see at the top left corner of the
25 picture the remains of the road bed. This was during Hurricane

1 Ivan. And repairs had begun at the time Dennis hit and,
2 unfortunately, what had been repaired was again left in this
3 condition after Dennis, and it still looks like that today.

4 We have a person there to give you a scale of what
5 the impact is to the road and the infrastructure in that area.
6 Here is an example of some pad-mounted equipment that although
7 survived the storm, there is a significant amount of erosion
8 that occurred that has to be repaired following the storm.

9 Also, I have just a couple of maps to illustrate the
10 severity of the storm and some of the storm surge that we saw
11 in our service area. This was Hurricane Ivan, and it's a
12 little difficult to see with the cover on the monitor, but we
13 had substantial winds. And you can tell from the path that
14 once it makes impact, they died off significantly, but still
15 caused a great deal of damage in our area.

16 We were trying to illustrate here some of the areas
17 that are susceptible to storm surge and flooding in our service
18 area, which is predominately our entire service area.

19 What we did prior to this hurricane season. Each
20 year following a hurricane season, hopefully we don't always
21 have a storm to do a post-critique on, but we do reevaluate our
22 storm plan each and every year, most especially in a year where
23 we have had to react in some way. But not only do we try to
24 learn from the storms that impact our area, we also attempt to
25 learn from storms that impact other areas. When we provide

1 assistance to other South Florida utilities, or Mississippi or
2 Louisiana utilities, we try to take away lessons learned and
3 provide a critique process for those storms, as well.

4 And as I mentioned, as being a part of Southern
5 Company, we do have the benefit of learning from what our
6 sister companies experience. And this year, most notably it
7 was Hurricane Katrina and the dramatic impact on the
8 Mississippi and Alabama coast. So we also were able to take
9 away some very powerful lessons learned from those critique
10 processes.

11 Before the season starts, we go through a rigorous
12 process of updating all the information on the employees in the
13 system, so that as we begin our storm assignments, we know we
14 have got accurate updated information and that we can contact
15 all of our employees in the event of a storm.

16 The storm assignments are communicated early in the
17 spring. At that time we generate new maps and make sure that
18 those are dispatched ahead of time and ready to go in the event
19 we need those.

20 We also begin preparing storm kits for each
21 substation, gathering material that would be part of those
22 storm kits. We ensure that we have adequate material for the
23 system, and we often compare our previous usage from storms.
24 Ivan in the past, what type of material usage we had during
25 Ivan so we know kind of how to gauge what we are about to face,

1 based on the size and the scale of the storm that is impending.

2 We also begin negotiating and confirming contracts
3 with vendors, tree and overhead line contractors, logistics
4 vendors. We learned a great deal about logistics as a result
5 of Ivan. There was a tremendous impact to the city's
6 infrastructure. Not only the roads and bridges, but the hotels
7 and the condominiums that were in the area. And so from that
8 we were forced to do a lot of non-traditional things in the
9 aftermath of Ivan with regards to how we house and care for the
10 people that provide us assistance. So going into this year, we
11 were able to take a lot of those lessons learned, have those
12 contracts in place ahead of time. We learned a lot about where
13 to stage some of those vendors in advance of the storm.

14 As you probably recall seeing some very graphic
15 photos of the I-10 bridge which was in the bay following Ivan,
16 that cut off our pathway to the east and made it very difficult
17 for us to bring crews from the east. You may also remember
18 that most of those crews were in south Florida working
19 Hurricane Charley at that time. So most everybody we were
20 going to be bringing in was coming from the east, and that
21 presented some tremendous challenges for us. So a lot of
22 lessons learned about where we need to stage, and if we had
23 those types of issues again how we would respond.

24 We always try to plan for the worst case, especially
25 after Ivan when we felt we had experienced the worst case,

1 because it is much easier for us to scale back after the fact,
2 but we go into it assuming the worst.

3 What we did. As the storm was approaching, as I
4 mentioned, we worked with our vendors to ensure we have
5 adequate amounts of material. Many of vendors now we provide
6 with our internal communications, our radios, Southern Link
7 radios, because that has proven to be a very reliable
8 communication tool for us. So ensuring that our vendors have
9 those radios as well has helped tremendously.

10 I mentioned the food, the lodging, the staging of
11 materials, and lodging vendors. Because of the tremendous
12 damage to our infrastructure, we have used a lot of tents and
13 nonconventional housing. And there is a lot of equipment that
14 goes with erecting a tent city, so staging of that equipment
15 before the storm. Also, immediately before the storm we begin
16 communicating a great deal with our customers and our local and
17 state officials. We want to make sure that our customers
18 understand what they are facing and encourage people to
19 evacuate as much as possible, but also what the duration of the
20 outages may potentially be, given the level of the storm.

21 We also begin talking within the Southeastern
22 Electric Exchange on mutual assistance agreements and acquiring
23 resources from as many diverse areas as possible. It was very,
24 very interesting for us, and we were very proud that following
25 Hurricane Ivan we experienced our highest customer satisfaction

1 ratings ever, and we are very proud of that fact, and it made
2 us feel like in spite of some tremendous challenges that we had
3 done some things right throughout that restoration. And so we
4 have tried to capitalize on what we did right and learn from
5 what we could do better and continue to refine and improve our
6 processes from year to year.

7 Post-storm. One of the things -- to talk a little
8 bit about our restoration process, we have a very decentralized
9 restoration process. We utilize a lot of the same people in
10 key storm roles from year to year so that there is some
11 stability. They know their role, they know what's expected,
12 and they are not waiting to hear from the corporate office once
13 the storm impacts to know what to do. They begin restoration
14 immediately. And to the extent they have resources and
15 materials there, which we do stage in advance, they are able to
16 start restoration many times before the storm may have passed
17 through one part of our area. For instance, a storm that would
18 make landfall in the Pensacola area, the Panama City to the far
19 east may be able to proceed with restoration while we are still
20 being heavily impacted. And so they do proceed in that area
21 and start restoring service and going about the method of just
22 getting the lights back on as quickly as possible.

23 A little bit about the post-storm sweeps. The sweeps
24 that we do after a storm, we do sweeps to determine damage
25 assessment, which is the initial post-storm sweep. The

1 post-restoration sweep that Paul mentioned, those are done more
2 on an as-needed basis based on the input from our field
3 employees who are in charge of the restoration effort. We make
4 a determination if those types of sweeps are needed, but they
5 have a much different focus from our routine pole maintenance
6 inspections. These are looking more at damage to the
7 facilities that were caused by the storm versus overall
8 maintenance of the pole and the pole hardware.

9 Go ahead and click to the link. Some of the things
10 that we are looking at when we go through the post-storm
11 sweeps, we are looking at the number of poles that are down, if
12 there's conductors that are still down or low hanging, if there
13 is damage to any of the equipment or the lights on the pole, if
14 there is damage to the guy wires. This isn't a below ground
15 sound and boring testing, it is not that type of sweep.

16 What about the future? We have talked an awful lot
17 about underground today, and we have heard people mention the
18 need to listen to our customers and communicate with them about
19 options that are available for undergrounding. And we have
20 done that in the past. We have a series of books that are
21 available to our customers that we use on a regular basis to
22 communicate with them about options for going underground.
23 There is a tremendous amount of activity in our service area
24 right now where certain areas have elected to convert their
25 systems from overhead to underground, and we are working with

1 each and every one of those customers to come with up with what
2 the best options are for them.

3 We do have a department that focused strictly on
4 underground conversions. And as I said, they are very busy.
5 And there are a lot of pros and cons to underground. It is not
6 the silver bullet that we would all love for it to be, as you
7 can see from the photos that I showed earlier. And in many
8 cases the underground facilities that are exposed to storm
9 surge are very vulnerable and can experience a tremendous
10 amount of devastation. And when that occurs, the outages are
11 going to be much longer and much more expensive do repair.
12 However, we do have that as an option for customers that wish
13 to pursue that.

14 One of the other things that we are looking at in the
15 future is a lot of discussion about vegetation management.
16 Most of our vegetation outages that occurred throughout the
17 storm were from trees that were off road right-of-way. We do
18 have outages that are also from trees within the right-of-way,
19 but an enormous number of outages are from those that are
20 outside of our control or that would not be trimmed within our
21 normal vegetation trimming process. And we can work and do
22 work with the public to try to educate them more about what
23 types of vegetation are most favorable to plant in and around
24 our facilities.

25 Our specifications, which has also been discussed a

1 great deal today, that is an evolving process. We are
2 continuously looking at new materials and new ways of doing
3 things, and trying to balance what is the most appropriate
4 decision long-term. Not strictly storm mitigation or storm
5 restoration, but what is going to provide a cost-effective
6 alternative and a reliable piece of equipment that is going to
7 work on our system long-term, and also try to prevent storm
8 damage as much as possible. So that is a continual process.
9 We want to make sure that in evaluating new equipment we don't
10 solve one problem and then create two or three additional
11 problems down the road. So we evaluate those new technologies
12 very carefully, but we look at that continuously.

13 We are getting increased data from our mapping
14 system. And as we have moved into a GIS mapping system, it has
15 much more capabilities than what we have had in the past. We
16 have recently converted to that system in the past year, and so
17 we are trying to begin populating that system with increased
18 data that we have not had available to us in the past.

19 Another area that we see in the future are increased
20 areas to improve our damage assessment. Up until now the focus
21 has always been to go and restore service as quickly as
22 possible, and there has not been the focus on gathering of data
23 of what caused an outage or was it an outage on the underground
24 or the overhead, or where the cause lies. It has just strictly
25 been try to restore the service safely as quickly as possible

1 to the most number of people. So the kind of data that I know
2 you would like to see today with scatter diagrams is just not
3 available for us yet. As we have moved into our new systems
4 and we look at new technology and new tools that could be
5 available to us in the future, we would like to move towards
6 gathering more data, to the extent that that data gathering
7 does not hamper the restoration effort.

8 Our focus so far has been on improving -- not so much
9 hardening our system, but improving our restoration process,
10 because that is the piece of this that we feel like we have the
11 greatest amount of control over. We have total control over
12 how we respond to a system. We may not have control over
13 mother nature, or what other things are in the community that
14 can impact our system. And we can harden our system to some
15 degree, but to the extent that the community is not storm
16 hardened, there still is going to be an impact. And we can
17 build a system that will withstand higher wind levels, however,
18 it may not withstand debris that is being blown at those higher
19 wind levels. So we try to balance the amount of resources that
20 we want to pour into storm hardening, when we know that that is
21 not going to totally protect our system to build it to a higher
22 level.

23 Also, what is in the future. I have touched a little
24 bit more on vegetation management, what our current practices
25 are with regards to vegetation management, our pole

1 inspections, and speak briefly about the NESC, which has been
2 discussed today, and our specifications. Currently our
3 vegetation work is performed by contractors. At the time that
4 they clear, they prune based on the current NESC requirements,
5 and the way we gauge our vegetation management program is based
6 on reducing vegetation-related SAIDI, our customer satisfaction
7 ratings. As there are justified PSC complaints related to tree
8 trimming, we evaluate those, and also public safety and our
9 focus on preventing accidents.

10 For us, we have a reliability-based vegetation
11 management program versus a cycle-based program, much like Paul
12 described at TECO. We evaluate the reliability of individual
13 feeders. Our vegetation management team will do an assessment
14 of those feeders each year, and will also incorporate any
15 feedback they have received from customers and our field
16 engineering team to put together a work plan for the following
17 year.

18 Our program has a mix of maintenance pruning and
19 targeted spot pruning. As I mentioned, those work plans are
20 developed based on our forestry services team along with our
21 reliability data and customer information. And 100 percent of
22 our transmission system is inspected each year and the
23 hazardous situations that are noticed are corrected.

24 Our distribution pole inspection. We have
25 approximately 250,000 wooden distribution poles. We are on a

1 ten-year pole inspection cycle. And we just completed our
2 first ten-year inspection style and have started on the second
3 ten-year cycle in 2003. All of our poles are inspected using
4 one of the following methods; either visual, sound and bore, or
5 partial or total excavation. And I would note that on the
6 first ten-year cycle we were inspecting only non-CCA poles at
7 that time. The second cycle will inspect all poles based on
8 age, location, and previous treatment.

9 Transmission inspection cycle for all transmission
10 poles is 12 years. We do perform aerial patrols at least four
11 times a year, and every structure on the transmission system is
12 inspected every six years using at least one of the following
13 inspection types that are listed: Ground, routine aerial
14 patrol, some comprehensive aerial patrols. I won't go through
15 all of those, but at least every six years one of those is
16 performed.

17 We have also talked about the National Electric
18 Safety Code today, and if we were to increase the code
19 requirements what impact that might have. I just wanted to
20 make the point that the safety code, the purpose of the safety
21 code is not necessarily to act as a building code for the
22 electrical system, and that it is also not intended to be a
23 design specification for the building code. So although we may
24 be able to increase the design standards that we build to, that
25 still may not provide the protection that I think we are

1 seeking for our system, and that there are other things that
2 are blowing around or washing around in the area that could
3 impact that that a higher design standard may not necessarily
4 protect us from.

5 In closing, I would just like to say that we do learn
6 from every single storm. And I think that our decentralized
7 restoration process has been a real advantage for us as has our
8 construction that is primarily on road right-of-way and not
9 rear lot lines. And these things, along with some other
10 factors, have enabled us to respond quickly and effectively in
11 the two major storms that we have seen as part of the last two
12 storm seasons. We will continue to look for ways to improve as
13 we have in the past, and continue to look at post-storm
14 critiques, both of ours and others and within the industry and
15 try to learn as best we can from those, and incorporate new
16 methodologies, new work practices, and consideration of design
17 changes as we move forward. This has been a great opportunity
18 for us to share ideas. We look forward to the continuation of
19 this process and what we can learn from this going forward.

20 Thank you.

21 MR. TRAPP: I have two. First, are you Sharon
22 Allbritton's cousin?

23 MS. MIREE: Yes.

24 MR. TRAPP: Sharon says hi. Universities. Are you
25 using any university data?

1 MS. MIREE: I missed your question. No, at this time
2 we have not done any collaborative effort with the
3 universities. Until the past two storm seasons, we have been
4 able to effectively restore service throughout the storms that
5 we have seen, so at this time we have not been doing anything.

6 MR. TRAPP: Do you have plans in the future? I mean,
7 do you see a usefulness for the data?

8 MS. MIREE: We have not looked at that yet, but we
9 are certainly open to that.

10 MR. TRAPP: Thanks.

11 MR. BALLINGER: We have one from the audience. When
12 you track the information you get from your pole inspections,
13 how is that kept in the database, or is that part of your
14 mapping system, too, that you are going to incorporate?

15 MS. MIREE: It is not part of our mapping system at
16 this time. That is one of the things that we would like to
17 capture going forward and build a much more comprehensive pole
18 database as part of our mapping system. But right now that is
19 a very labor intensive manual process.

20 MR. BALLINGER: Thank you.

21 MR. BREMAN: You brought out that the NESC is not a
22 design standard. Do you work with a standards committee that
23 sets design standards for the electric utility industry?

24 MS. MIREE: We work with -- we have members across
25 Gulf Power and the other Southern Companies that participate in

1 many industry committees, if I understood your question
2 correctly, that look at many different things. Within Gulf, we
3 utilize our own standards and we often build to meet or exceed
4 the NESC requirements. But as I mentioned, there's different
5 locations within our system that may require the flexibility to
6 provide more than what would you get in a standard design, for
7 instance, on the beach where I mentioned sandy soils and/or
8 beach construction.

9 MR. BREMAN: So the NESC acts as a minimum standard,
10 and then you build up from there?

11 MS. MIREE: Yes.

12 MR. BREMAN: Is there any organized structure to the
13 electric utility industry that seeks to modify the minimum
14 building standards?

15 MS. MIREE: Not that I am aware of.

16 MR. BREMAN: Thank you.

17 MR. BALLINGER: I have one more. You showed a lot of
18 pictures of damage along the coastline to your underground
19 stuff. Do these same customers, are they still requesting
20 underground service, even after the destruction?

21 MS. MIREE: Yes, they are. Primarily, our
22 underground requests have stemmed around aesthetics and not
23 really protection, storm protection. And so there is still a
24 lot of activity in that area right now. And we try to be as
25 forthcoming as we can about the pros and cons of underground,

1 especially in a storm surge prone area, and it is ultimately
2 the customer's decision.

3 Thank you.

4 MS. HELTON: Thank you very much, Ms. Miree. It has
5 been very informative. For those of you who have been studying
6 the agenda and see that we have two speakers left and are
7 looking at the clock and wondering how are we going to do it,
8 we are going to finish today. However, I have been assured by
9 the two remaining speakers that they don't have very long at
10 all, so you can plan your evenings accordingly.

11 Next we will hear from Mark Cutshaw with Florida
12 Public Utilities.

13 MR. CUTSHAW: Good afternoon. I do assure you that
14 this won't take long because I anticipated being at this point
15 of the agenda, and I'm sure everybody is wanting to get out, so
16 we will move rather quickly.

17 I am Mark Cutshaw. I am the General Manager for
18 Florida Public Utilities in our Northeast Florida Division.
19 What I wanted to do quickly is kind of go over a little bit
20 about our company. Most people are not aware of Florida Public
21 Utilities Company, but we are a small investor-owned electric
22 utility in Florida. We are that fifth company that most people
23 overlook. We only have 27,500 customers. We have two service
24 territories; one is located on Amelia Island north of
25 Jacksonville right at the Florida/Georgia border. We have

1 another service territory in the Florida panhandle centered in
2 Marianna, Florida, which is between Panama City and Dothan,
3 Alabama.

4 So we have two different areas. And, unfortunately,
5 if a storm hits Florida it probably will affect one or the
6 other of our service territories. So during the 2004/2005 time
7 period, we did get impacted several times. As you can imagine,
8 having only 27,000 customers, we are rather small. We have a
9 limited staff level and limited resources.

10 Even though we were impacted by seven different
11 storms in our service territories, the only major impact was
12 associated with the tornados caused by Hurricane Ivan. Even
13 though we weren't close to the center of the hurricane, we did
14 have several significant tornados move through our service
15 territory and did a large amount of damage to those areas.

16 Seven storms hit both areas. We had 74 poles broken.
17 So you can see from that, compared to some of the other stories
18 that you have been hearing, that our damage was minimal. Out
19 of the 74 poles, 60 of them were associated with the tornados,
20 so we were very, very lucky during the storm seasons that we
21 were not impacted. Three and a quarter miles of distribution
22 line. Again, the major cause of that were the tornados during
23 Hurricane Ivan.

24 As we mentioned, we had minimal damage. We were
25 lucky and we realize that it could have been much worse, given

1 the situations of some of the other companies that were
2 directed impacted by the hurricanes. We did have successful
3 times during this system restoration activity. We had no
4 problems with our inventory. We were able to make all the
5 repairs with the inventory on hand.

6 We did have additional manpower from outside the
7 company through mutual assistance agreements and contractors.
8 They were there, they were ready to go to work when the storms
9 occurred, and we were able to make the things happen.

10 On average, most of our customers experienced about a
11 two-day restoration period. A lot of them had service the same
12 day after the storm passed. The longest outage was associated
13 with the tornados. We did have some customers that were out
14 five days. That was the longest impacted customer we had.

15 We did a little research in preparing for this
16 workshop and looked at some of the questions that were posed to
17 us, and we estimated that about -- I think it's about 30
18 percent of our system doesn't meet our current standards. They
19 were constructed many, many years ago, but they are out there.
20 And to replace that 30 percent we estimated about \$41 million.
21 Our current rate base is about 37.8. If you look at the damage
22 from the 2004/2005 hurricanes, does it really justify that
23 expenditure? Probably not, based on our experience.

24 However, if we look at what other companies have
25 experienced, the things that need to be done, yes, we need to

1 become a little more proactive and start working towards being
2 able to have those areas replaced, do more hardening on our
3 system. So we do have a significant step to get to where we
4 would like to be, and we are going to participate.

5 We are the small little brother in this IOU
6 organization. We do depend on the other companies a lot for
7 assisting us, coaching us, and as you can see by the next
8 slide, we have not done a lot of comprehensive research. Those
9 people that are familiar with Florida Public Utilities
10 understands our situation. But we are going to work with the
11 other utilities. We are involved in different organizations.
12 We are ready to do what we need to do as we move forward.

13 In conclusion, we were lucky during the 2004/2005
14 time period. We were impacted by several storms, but we feel
15 like based on the preparations that we made, the manpower, the
16 inventory that we had available, our maintenance programs that
17 proved to be quite effective during the impact of the storms,
18 we felt like we were successful. But we know, just like
19 everybody else, that we can do better and we will be prepared
20 in the future. Thank you.

21 MR. TRAPP: Just one. You said that your estimate
22 was based on an assumption of 30 percent of the existing
23 facilities not meeting current standards, that's because of the
24 grandfathering nature of the code?

25 MR. CUTSHAW: That's correct.

1 MR. TRAPP: What is your average design criteria,
2 Class C?

3 MR. CUTSHAW: We build according to what we consider
4 Class C standards. I know there have been some changes. We
5 have not updated our standards in the last few years, so we
6 think what we are doing now meets the current standards for
7 Class C.

8 MR. TRAPP: And if you were to -- based on the same
9 assumptions, if you were to look forward on a replacement basis
10 only, not a retrofit, but just as things needed to be retired,
11 do you have a feel for how that would affect the cost estimate?

12 MR. CUTTING: I guess we, in talking, looked to do
13 this over a 10 to 15-year time period.

14 MR. TRAPP: So this assumption is based on a
15 ten-year?

16 MR. CUTSHAW: That is doing it now. That is total
17 cost right now in today's dollars, but we would move forward
18 and do it over a 10 to 15-year time period. And that does
19 include distribution and transmission.

20 MS. HELTON: Thank you, Mr. Cutshaw.

21 And our last speaker is Michelle Hershel with the
22 Florida Co-op Association.

23 MS. HERSHEL: Thank you. I will be much quicker than
24 Mark.

25 I'm Michelle Hershel. I'm with the Florida Electric

1 Cooperative Association, and really I have nothing to add. I
2 just wanted to tell you all that there are 16 electric
3 distribution co-ops in the state, and they receive their power
4 from two generation and transmission electric cooperatives.
5 All of our co-ops have detailed hurricane plans. And like the
6 other utilities, we continuously critique our performance and
7 improve our plans, including the plans of our association and
8 our national association to assist with mutual aid.

9 Like the other utilities, we have made significant
10 improvements to our design standards over the years both to
11 minimize damages to our facilities and to expedite the
12 restoration process. Thank you.

13 You don't have a question, Bob. (Laughter.)

14 MR. TRAPP: I have to question for everybody,
15 Michelle.

16 You are representing the rural electric cooperatives,
17 I imagine you have some experiences to share with respect to
18 tree trimming and that type of thing. You are mostly serving
19 customers in rural areas, which I imagine are highly foliated.
20 Are there any particular --

21 MS. HERSHEL: I can get you some specifics.

22 MR. TRAPP: We'll ask for a late-filed later. Thank
23 you.

24 MS. HELTON: Thank you, Ms. Hershel. I would also
25 like to thank all of the presenters who have come and traveled

1 today to Tallahassee. Everyone who has sat through the
2 audience. I can't believe we still have this many people in
3 the audience at 5:40 in the afternoon. I would like to thank
4 all of the staff who have worked so hard in putting this
5 workshop together. I think it has been very productive, and
6 very informative, and I hope that you all have found it to be
7 so, as well.

8 As Bob and Connie have already mentioned today, we do
9 envision having post-workshop comments being filed. However,
10 if they are going to be of any use to us in our immediate
11 actions, we need those by no later than next Monday, January
12 30th. You could provide them to our Clerk's Office, and they
13 will get them to the appropriate staff.

14 As I think either Connie or Bob, or maybe both of
15 them have mentioned, our next immediate action of the staff is
16 to bring to the Commission a recommendation at the
17 February 27th Internal Affairs. And as they have also
18 mentioned, we hope to give them some recommendations of actions
19 that the Commission can take both on a short-term and a
20 long-term basis. And you can help us, and you can give us some
21 ideas, or we can be telling the Commissioners without your
22 input. But we are asking for your input.

23 And, Commissioners, we hope that we have provided for
24 you some meaningful information and some information that will
25 be useful for us to make short-term and long-term goals.

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With that, the workshop is adjourned.

(The workshop concluded at 5:41 p.m.)

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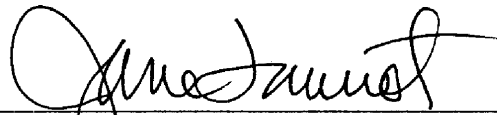
CERTIFICATE OF REPORTER

I, JANE FAUROT, RPR, Chief, Office of Hearing Reporter Services, FPSC Division of Commission Clerk and Administrative Services, 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 25th day of January, 2005.



JANE FAUROT, RPR
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