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FLORIDA PUBLIC SERVICE COMMISSION

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2017 HURRICANE ROUNDTABLE.
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COMMISSIONERS PARTICIPATING:	CHAIRMAN JULIE I. BROWN COMMISSIONER ART GRAHAM COMMISSIONER RONALD A. BRISÉ COMMISSIONER JIMMY PATRONIS COMMISSIONER DONALD J. POLMANN
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P R O C E E D I N G S

CHAIRMAN BROWN: Good afternoon, everyone. Thank you so much for being patient with us with the delay. We have a bunch of folks here today, some notable people, including -- our first speaker today is Mr. Leo Lachat from the Division of Emergency Management. We also have with us from the -- who is the director of the Florida Division of Emergency Management, Mr. Bryan Koon, who is here with us behind me, who has played a very active role in our overall discussion that we're going to have here today.

We have with us Mr. Eric Silagy from FPL, president and CEO; Mr. Stan Connally, chairman, president, and CEO of Gulf Power; Mr. Gordon Gillette, president and CEO of Tampa Electric Company; Mr. Harry Sideris, state president from Duke Energy Florida. And it's nice to see you and have you here in our public forum here today. He -- I know he just started with Duke Energy Florida back in November, so this is a nice opportunity.

COMMISSIONER PATRONIS: He's Greek.

CHAIRMAN BROWN: Is he?

COMMISSIONER PATRONIS: He's Greek.

CHAIRMAN BROWN: That's a very important fact.

COMMISSIONER GRAHAM: Are you going to

translate for us?

CHAIRMAN BROWN: We have Mr. Jeffry Householder here with FPUC, president. We have with us -- we have two special guests with us who were not at the last roundtable last year. From the Florida Municipal Electric Association, Ms. Amy Zubaly. I hope I pronounced it correctly.

MS. ZUBALY: Zubaly.

CHAIRMAN BROWN: Zubaly. Thank you. Thank you for being here, Interim Executive Director. And from the Florida Electric Co-Ops Association, Mr. Bill Willingham, general manager.

I want to just take an opportunity, first and foremost, to thank you all for being here today. It's a very important topic, hurricane preparedness. We started this tradition last year having a roundtable discussion with the executives from the electric IOUs, and we had Leo here as well, to kind of go over some of the things and hear first-hand from the executives on how your efforts are on strengthening the electric grid and distribution system and really focusing on what the utilities are doing to communicate with customers post-restoration and also the prepared -- the hurricane prepared efforts.

I do want to say -- thank you, oops -- I do

want to say that on a national level our Florida IOUs are the leaders in this area, so it's really a treat to get to hear from you all first-hand, and I appreciate you supporting our efforts here today. I appreciate my colleagues also for supporting these efforts.

And with that, we're going to hear a few presentations today, starting with Mr. Leo Lachat. And you don't have to read from them, but it's very, very relaxed here. We tend to interrupt and ask questions, so don't take it as an affront or anything of that nature.

MR. LACHAT: No. Thank you, Chairman, and thank you, Commissioners. This actually, for me, is the -- I think this is the third time I've briefed you, and we again appreciate including us in this. It's been excellent. Last year, when we did the briefing last year, obviously we didn't know what we had in front of us. So since that time, now we can look back on two landfalling hurricanes in Florida, the first since 2005, and we've learned a lot more lessons from them since the preceding activations.

And I've got a number of slides I'm going to go through here. I promise these are going to go very quickly. I know there's a lot of them, but I'm going to zip through them. But I think you'll get an

appreciation now that you've had a recent event, and especially the next speakers that will be addressing you also, to see how we're organized and how we work. So let me go through these now very quickly.

The Division of Emergency Management, basically we're housed over at the facility across the street, the state EOC. Our mission statement is pretty simple, and it includes the four phases of emergency management, as I've mentioned in the past to you: Preparedness, response, recovery, and mitigation, the four cyclic pieces of emergency management.

Real simple, Chapter 252 is our statute that we follow. There's a lot of things connected to that such as the governor's authority under constitutional powers for executive orders and emergency powers. But Chapter 252 is really our -- that's what allows us to exist and how we operate.

The Comprehensive Emergency Management Plan is what we focus on in Florida. That is our overall all-hazards event, all-hazards planning in Florida, and it connects up to all-hazards planning at all 67 counties. And then in turn that plan connects to the federal government, to the national response framework. So there's a very coordinated planning framework in place from the federal government to the state to the

local governments, the county level.

In Florida, emergency management is very county centric. Okay? The state gets very involved in it when multiple counties are involved or the federal government or it's an absolutely massive event that we have to get into, but most of the time in Florida day-to-day emergency management is very county centric.

Our operational regions in Florida are identical to FDLE and Health, and that's specifically for a reason. We have coordinated those since 9/11. They are identical in geographic areas. We have seven of them. We have staff in those regions that work with those specific counties, so we have folks in the field all the time.

These are some of the other things that we deal with at emergency management. Historically people think, well, you're the hurricane guys and all that. Well, far from it. We deal with approximately 12,000 incident activities every year. The majority of those are hazardous materials, spills of some kind, what have you. The second group would be weather related, and then it goes downhill from there. We get into all kinds of transportation accidents: Air, water, you know, whatever, highway. We get into a lot of other things in Florida beyond just weather- and hurricane-related

activities.

Fires right now, the state EOC is a Level 2 activation. The governor last week issued an executive order. We're in the process of coordinating with the Florida Forestry Service. National Guard helicopter support flying in the Central Florida area. And based on what their actions are and their activities, we'll be doing possibly more of that in the coming months. The outlook for the weather is not very good right now, so we're doing a lot of work with Forestry.

So these are just a couple of other major activities or major categories of things that we get involved in. The bio-terrorism one at the bottom, I'll mention that. The Anthrax event back in the early 2000s, we were very active in that working with the county health departments, with the Florida Department of Health, and with the county emergency management offices. A lot of white powder incidents and so forth that came out of that.

CHAIRMAN BROWN: Leo, when you train for, let's say -- and I've been there, you know, when you've had an activation for a hurricane. But when you train for any -- each of these events, are they different?

MR. LACHAT: That's a good -- thank you for

asking that. Our plan is all hazards in nature. A different lead agency may lead the -- for instance, right now Forestry is running the fire episode. In a bio-terrorism pandemic event it would be the Department of Health. But the functional nature of what we do at the state EOC, they all do the same types of things to support that lead agency. That's really what's important about what we do over there. Our -- we're set up to functionally support whatever the incident is, and it's really identical in that regard.

These are some other hazards that we deal with. You know, the ones on the left are the ones that are common. Everybody knows those. The ones on the right is where things get interesting.

Terrorism events. We've had two incidents in the past year: The Pulse event down in the Central Florida area, and the Fort Lauderdale event down in Broward County, Fort Lauderdale airport. The state EOC -- obviously the lead on those was law enforcement as the crisis management focus. But on the consequence management side, which is the other piece to all of these, the state EOC takes a lead on that to support the counties and the cities involved. And we did activate the EOC over there across the street in support of both those counties to provide human services type support to

the victims' families and some other things that occurred. It was a very comprehensive support to those counties.

CHAIRMAN BROWN: Commissioner Brisé has a question.

MR. LACHAT: Yes, sir.

COMMISSIONER BRISÉ: Sure. Thank you. So when we look at the technological hazards, have you all started to consider or run drills for cyber and the impacts on cyber, say, on a utility and how the state would respond to that?

MR. LACHAT: I'll say more specifically we're dealing with other partners that work with those types of activities. There's a number of other entities connected to us that work on that. And, yes, we're very involved in those planning and those exercises.

Some of the other ones on the right, mass migration. We just had a large exercise recently in the South Florida area that dealt with anticipated, you know, federal planning. We support the federal government on those issues. We just recently completed another one this year.

Special events this year already. We supported the BCS National Championship game working over there with Hillsborough County over in the Tampa

area, and then the Pro Bowl in Orlando. Okay? We don't get to go to those events, so it --

CHAIRMAN BROWN: That's a shame.

MR. LACHAT: Yeah, it sounds like it would be fun. But we get to do a lot of work with them. And we also do things like support the Speedway in Daytona Beach when they have large events. And this is really the human services part, and the consequence planning is what we're involved in.

Launches at the Cape, large launches, we support Brevard County and we activate -- or they activate and we're in support of them. We get feeds from NASA at the state EOC. So we're very aware of things going on around the state constantly. So this just simply shows you the extent and breadth of what we do over there. There's a lot more than hurricanes.

And I put this one up if anyone has any doubts. We show this one for shock effect. This is just all the -- NOAA put this chart together. This is all the known tracks since about the mid-1800s. If anyone from Maine to Texas doesn't think there's a hurricane threat, they need to look at this.

The State Emergency Response Team is not an agency, and that's what makes -- I want to really emphasize this part, I have in the past, but this is

what makes us, I think, very important and valuable. The way we're organized over there is not under an agency. The State Emergency Response Team is all the agencies and partners combined. DEM, the Division of Emergency Management, is responsible for managing it and organizing it. But when we activate it, it's really owned by all of the partners together. So while we have the -- we have the privilege of running it and operating it, our experts really come in from other agencies: The health people, the folks from the PSC. For instance, your ECO is Rick Moses, and he comes in and does an excellent job working with one of the functions. We'll go through those in a minute. We have --

CHAIRMAN BROWN: He just got our most notable award called the Gunter Award.

MR. LACHAT: Good, good.

CHAIRMAN BROWN: So he -- we have recognized him for all of his excellent work.

MR. LACHAT: Thank you for that. Well, he's -- it's well deserved.

Fire, law enforcement, we'll go through those here in a minute, the details of those, but we bring in the expertise so they're all combined in the EOC. And then that place serves as a command and control element with the governor basically as the incident commander,

and he's got a decision-making process right there at the EOC. These are decision-makers and people that can make things happen. So that's what the state EOC is. But you won't see specific agency names or corporate names or anything like that in there. It's a partnership of people we bring together in there to solve problems.

Our activation levels -- right now we're at Level 2, but that's because of the fire declaration. A Level 1 is what we would have been at for the two hurricanes. Those are full-blown, all ESFs onboard.

I just mentioned a few of the emergency support functions, and this really is a value to where we are. Prior to Hurricane Andrew, or Hurricane Andrew included, everything was agency based. Okay? And that's the way it really was across the country. So you would go into an EOC such as ours and you would see the Highway Patrol, FDLE, the Department of Health, and as the missions came in from the counties and they were solving problems, those missions would get handed to an agency. So every time there was a road issue, guess who got the mission? FHP or -- if it was that type. But if it was a law enforcement-related road, it went to FHP, and over and over and over again.

When we went to the ESF system, we pulled all

the functional law enforcement in every state agency together and we added the Florida Sheriffs Association and the Police Chiefs Association. And now representatives of those groups, to use that as an example, form a matrix group, and then they solve it using law enforcement from any agency. It doesn't just have to be one specific agency or another.

So the next time a traffic call might come in, it may be two game and fish officers, Florida Wildlife Commission, and it may be two lottery officers because they're sworn law enforcement and they have the same authority and powers as any other.

So what that -- by doing that, it maximizes the use of resources in the state of Florida. It allows us to use resources that are deployed all over the state for a quicker response and we're not just wearing out a few agencies. Now it's all coordinated. Well, if you carry that through every one of these 18 functions I'm showing you here, that's the main difference of what has happened in the last several decades since Andrew. The main improvement is the structure.

There's a few more of them. Mass care, that's our sheltering. Go on down the line. Urban search and rescue, the Fire Marshal's office primarily runs that one, but it's a combination of others. Hazmat.

CHAIRMAN BROWN: PSC.

MR. LACHAT: PSC is No. 12, energy. Okay?

And when you go over to the state EOC, what you have in that room over there at ESF 12 are representatives from the utilities, the power companies, you have your staff, you have other partners. And it's not necessarily an agency or logo base, it's a function. We're getting power restored. That's really what the effort is. And so that gets carried out as an example for the rest of them.

Here's the last of them here. Animal protection was put in after the fires in 19 -- or the flooding events back in 1998 and the fires because we had a lot of animal issues in the state of Florida with animals running loose in ranges in Central Florida, so we added 17. And 18 was added after the '04/'05 season when we saw how important the business and private community -- private sector was to our operation. So that's been in effect since that time.

Our organization is really simple. We're in sections and branches. If you go into the EOC, you're going to see a very, very simple span of control, economy of management approach to command and control in there. We're not overwhelming people. We focus on subject matter experts. Bryan Koon is the state

coordinating officer, also is a director, but the state coordinating officer is a legal designated role in the executive order. And then I serve as the State Emergency Response Team chief in the state EOC, just making that all work in there. But the subject matter experts again are the folks in there from the agencies. I count on them to answer the hard questions.

Very simple layout. This is in the EOC as well. The only thing that changes from what I just said is our four sections: Operations, planning, logistics, and finance. That's county through federal government layout. We do it the same, incident command system.

A couple of principles, and I'm kind of wrapping it up here, but these are the principles that we tried to follow since lessons learned in -- and this goes back decades, maybe to the mid-'90s. We have picked up on the following that I'm about to share with you.

Disasters are local, and that sounds really simple, but the thing that we try to follow there is if we go in and take over or try to overwhelm a local government, when you leave, you'll leave them in worse shape. So we try to go in and complement the local government, make sure they can pick it up and run. We don't go in and usurp anything, powers or whatever

authority. We try to go in and complement what they're doing. That is a -- this is really a big deal in Florida.

CHAIRMAN BROWN: Leo, can I just ask you a question on that?

MR. LACHAT: Sure.

CHAIRMAN BROWN: So -- and joint coordination is critical to getting that successful message out, I guess, and also to being able to communicate with customers on the restoration times, et cetera.

MR. LACHAT: Right.

CHAIRMAN BROWN: How do you think from this past hurricane season the coordinating efforts are produced -- how are they? How are they?

MR. LACHAT: On several levels. The coordinating elements with the counties and the state EOC is excellent. We can coordinate on the emergency management side very well. We learned a lot of lessons this year via ESF 12 and the messaging. And I think you may hear about some of that today as well, but we learned a lot about that. And I think there was a lot of positive movement on that issue, both messaging, the approach to doing restoration. I know the EOC was working very hard to support the companies and what they were trying to do on the basis of just the overall

restoration activity. You want to make sure you have re-entry to the community, access to the area, that it's done safely. That's really what we're after at this point, that we could support the movement of vehicles and so forth in from out of state into the disaster area. We played a lot of role in that as well over at the state EOC. You'll probably hear those kinds of things when the companies speak as well.

CHAIRMAN BROWN: Well, from your perspective, and I had the opportunity to be there for Hurricane Matthew, and you all just did such a very, very smooth job and it seemed so calm even though there were so many things going on in so many areas. Are your efforts to -- for preparedness and for your drills, are they going to change from last year's hurricane --

MR. LACHAT: We went through a very extensive after-action report.

CHAIRMAN BROWN: -- hurricanes?

MR. LACHAT: Yes. We went through a very extensive after-action process after Matthew and after Hermine as well, and we have captured those lessons learned.

We have a number of things we're going to be re-looking at. I'll mention a few of them right upfront. Evacuations is an area that we want to take

another closer look at. We've done a great job with that and we've done a great job preparing for it. And the modeling that we have done and the things that we have learned over time are a credit, but we want to work on that a little more closely with our counties.

Matthew was a very, very difficult track because of what it did up the East Coast. That was a very hard track. You know, 20 something years of this and almost 100 declarations I've been involved with, that was a very difficult one. Fran and Floyd gave us similar concerns in the past.

The problem with, the problem with Matthew, though, if you looked at where the tropical storm winds ran over the peninsula, they went all the way clearly over to the West Coast on some of those tracks as it was coming north. It was very difficult.

But the other issue is to get people away from flood zones. That was really the main issue that we were focused on working with the counties. We're going to relook at some of those.

Another issue that we're looking at closely is the sheltering. Sheltering capacity is something that we work very hard on at the division working with the counties. But it's the support of those shelters through agencies such as the Red Cross and Salvation

Army and others, and we're working with, we're working closely, more closely with those folks. There were some lessons learned about that: The ability to not open as many, to move some in a different geographic area. But overall it went very well, but we learned some lessons about that that we have to readdress.

CHAIRMAN BROWN: Excellent.

MR. LACHAT: Things like debris management after the storm. We're working on that as well with DEP and some of our other -- our water management districts and things of that nature.

Windblown debris in rivers and water has been a very, very difficult issue from Matthew because of the surge on the East Coast and up into the St. Johns River. So we're working hard on those. So, yes, we've learned a lot of -- there's a lot of lessons learned from this.

Requesting assistance. It can only come from the governor to the president, chairman to the governor, mayor up to the chairman. This is Stafford Act right here, the Stafford Act for emergency management.

Our priorities in the first 72 hours, and this is sometimes what -- you know, people are like, "Well, why aren't you doing this? Why aren't you doing that?" This is our focus right here. We are trying to get into an area, search, security, and stabilization. What does

that mean? We want to get the people that are trapped. We want -- we send in resources to get people out of homes, get people into the hospital that need medical attention, get law enforcement into a community to help stabilize it, get it secure. Okay? We don't want chaos and disorder in a community.

Now this also ties in with what we ask the public to do for the first 72 hours. Have your food, have your water, have your pharmaceuticals as best you can. Because this is what we're focused on at the state EOC, and we're asking the public to please do what they can.

And then after we are able to do that, we can start to go into some of the other needs here like these. We can start to increase medical, water, food, shelter. So we ask for those 72 hours first from the public, and then we focus on this. I can hand this chart to anybody going to the field, and they'll be successful if they follow these six, these six ideas right here, these six items. This completely can help a community if we focus on these for the first week or so. All right. Those are, those are pretty -- I mean, they're pretty easy to follow there.

We only do ice -- you'll see ice located six, No. 6. We do that for pharmaceuticals, and that's

mostly at shelters. We've never handed out ice just for the heck of handing out ice. We hand out ice because there's a medical need or cooling or chilling pharmaceuticals.

Some considerations: Cost-effective, mistake free, and fast. We get to pick one in this business. Okay? We'll never have all three. That water was actually moved from Homestead, Florida, back in 2005 to the Keys. That's the most expensive water probably on the planet. Okay? All right? But we had no choice because the water line was cut off going into the Keys. And if you've got children and elderly and so forth, you've got to get them water. And so we were lifting it by helicopter, National Guard helicopter down into the Keys. I mean, we'll do that over and over again because it's a necessity to do that, if we have to.

We're focused on outcomes, not process. I won't go through all of this. But that's really our goal at the EOC is get decisions and get outcomes accomplished.

The old idea -- this was an old Craig Fugate, and I've always respected this, use the sledgehammer, get in. If you have to take in, bring in too much or you have to -- that's okay. It's better than coming up short.

I'll tell you right upfront, we did a lot of preparedness for Matthew. We bought a lot of food, water, and so forth. I'm proud we made those decisions. If that storm had veered 30 miles to the west, we wouldn't have had enough probably. We would have been bringing in more truckloads. So we've been able to store that, and we have it for this year's hurricane. The shelf life is still fine, and we're going to have that for this year's hurricane season. So we use the sledgehammer approach when we need to. And then flexible plans, those are always important.

These are some things I wanted to just mention here at this meeting regarding what we did specifically to assist with power restoration. I thought there'd be an interest in this.

We coordinated the waivers for overweight utility trucks. You may hear about some of that from the companies. Assisted with approval for utility truck convoys to bypass weigh stations. And that was done with, you know, DOT motor carrier compliance, the Highway Patrol. They get involved in those types of things.

We used a portion of Camp Blanding for utility vehicle and equipment staging areas. Okay? That was something that we did unique to this event and something

we'll continue to do. We set up a staging area with some of the companies that needed additional areas.

Mutual aid coordination for municipal and co-op utilities, that was done at the EOC as well to assist. And then, of course, conference calls with the governor and the electric utilities during the restoration process. So those were some specific things that were being addressed by ESF 12. And that's my presentation.

CHAIRMAN BROWN: Leo, thank you. Always a pleasure having you here --

MR. LACHAT: Thank you.

CHAIRMAN BROWN: -- and sharing with us some of your insights from the past season.

MR. LACHAT: Thank you.

CHAIRMAN BROWN: And, Commissioners, any questions, comments in general?

COMMISSIONER BRISÉ: Great job. Thank you.

COMMISSIONER PATRONIS: Excellent.

CHAIRMAN BROWN: Thank you. Excellent.

MR. LACHAT: No, thank you. And thank you for all your support while we were activated, the visits and so forth. Thank you all very much.

CHAIRMAN BROWN: Thank you. Thanks again. And thanks, Bryan.

All right. Next up we have with us Mr. Eric Silagy with Florida Power & Light, president and CEO. Mr. Silagy, welcome.

MR. SILAGY: Thank you, Madam Chair. It's good to be back.

CHAIRMAN BROWN: It's great to have you.

MR. SILAGY: Especially without a hurricane out there, which is nice.

CHAIRMAN BROWN: Without a hurricane.

MR. SILAGY: So I also want to add my thanks to the fact that you and the rest of the Commissioners are bringing us all together because there's no substitute for being focused and prepared for the inevitable. As we saw from the previous track map that was put up earlier --

CHAIRMAN BROWN: Yeah.

MR. SILAGY: -- it's not a question of if, it's just a question of when and where we're going to be hit in the state with a storm. Now fortunately it had been a long time up until last year, but we -- I thought we actually as a state did a nice job in responding, and we also learned a lot of good lessons which we're incorporating.

So I have a presentation. I'll go through it. And, as always, please jump in and interrupt wherever,

wherever you see fit.

CHAIRMAN BROWN: Thank you. Appreciate that.

MR. SILAGY: Just as a quick overview, we serve half of the state, so we've got a fair amount of coastal Florida that we actually serve. It is 35 counties, 27,000 square miles, about 74,000 miles of line. And what many people outside of Florida don't realize is how many people live so close to the coastline. About 85 percent of our 10 million people that we serve live within 20 miles of the coastline. So anything that affects the coast is pretty much going to affect nearly everybody in our service territory.

So I'm going to go very quickly through some slides on this for the update, starting with, frankly, the investments just to remind everybody what we've been doing for the past decade, really post-'04, '05 hurricane season, and then the hearings that we had afterwards that the Commission held.

We started and have continuously been investing significant amounts into our grid, about $2.7 billion to date. As you can see, many of our main power lines have been strengthened and hardened. We are almost completely done with replacing our transmission system with wood with steel and concrete. So by the end of this decade, we will be completely steel and concrete

at the transmission level. And I will tell you, we saw this pay off, and I'll talk a bit more about that, last year during the storms.

Pole inspections are also critically important. We have, as you can see, over a million poles in our system. It's a lot of poles to go through an inspection process. We're on a regular schedule to do that. And, you know, like anything, infrastructure degrades, and so at times you have to go out and replace it. You don't know what to replace unless you're doing these kind of inspections.

Vegetation management is also critical. You know, what was interesting was it had been a long time since we had a big hurricane come through, and you see that impact when you have a storm because you have a lot of vegetation that actually gets kind of cleared out through Mother Nature's way of a hurricane, but it also creates real challenges when you have a storm, like it has been ten years since Wilma. We saw that difference in '04 and '05 when Frances was the first storm that came through on the East Coast at least, and the amount of vegetation, the amount of debris that cleared through, compared to Jeanne, was significantly more because it had already been cleared through.

CHAIRMAN BROWN: Can you talk about the

undergrounding and what percentage -- I'm not aware of --

MR. SILAGY: We have 74,000 miles of line. About 67,000 miles of that is distribution, and about a third of our system is underground.

CHAIRMAN BROWN: Okay.

MR. SILAGY: And we are continuously working with municipals in areas on undergrounding existing lines. We have a program in place to do that and to help offset some of those costs because there are O&M savings on a day-to-day basis.

CHAIRMAN BROWN: Is it successful during a storm in terms -- I mean, it's hard to --

MR. SILAGY: Yes and no. So as most things in life, it's not all simple and black and white. So obviously against wind it is actually quite effective to do the undergrounding. Generally speaking, the underground system did well. Not always because depending on how much you have uprooting of trees, the roots that grow over time can actually interfere with the undergrounding.

The challenge really is in flooding on many of the undergrounding. And in this storm, in Matthew, as an example, we actually had some very significant and severe flooding around the St. Augustine area. And so

underground systems there were actually adversely impacted, and there were areas where we actually proactively turned the power off. I'll show you a picture of that. And power that was aboveground was actually still on, but underground had to be proactively put out. So there's no silver bullet on this, but undergrounding absolutely has benefits to it.

CHAIRMAN BROWN: Yeah. Thank you.

MR. SILAGY: So on -- just to get to transmission and poles, I've talked about that, but also focus on substations. And then one of the areas is on the lessons learned. You know, we respond, as all of -- all the IOUs do and many in the municipal and co-op areas too, to other storms -- to other utilities that are in need in storms outside whenever we can. And during Sandy, we deployed a lot of folks up to the northeast to try to get the power back on. And in our case, we were helping the New Jersey/Long Island area.

One of the areas -- one of the learnings that we had from that storm was having to do with flooding and in substations particularly. They had storm surge. They had a lot of issues around actually stranding employees there and some danger associated with that. We came back from that storm with an idea of actually putting in flood monitors in the substations, monitors

that would actually do -- give us two different levels of view from the standpoint of what's happening in the field. One, water is in the fence and kind of puts you on alert, puts the substation up on the board, if you will, for close monitoring, and then, two, if it continues to rise, imminent threat to the substation and the equipment. And for the first time during Matthew, we actually -- that equipment came into play and we proactively shut a substation down before it was damaged. And that actually resulted in significant savings, and I'll show you a picture in a minute.

CHAIRMAN BROWN: Commissioner Polmann has a question.

MR. SILAGY: Yes, Commissioner.

COMMISSIONER POLMANN: I can see you're making great progress with your transmission poles and bringing those over.

MR. SILAGY: Yes.

COMMISSIONER POLMANN: You note here 223 substations upgraded. Could you also give us an idea of what percentage, what kind of progress you're making there? So, in other words, what number are at risk compared to how many you've upgraded? And then you indicate 25 are protected from storm surge. So, again, a similar question. What, what --

MR. SILAGY: All of the substations that are in a floodplain area -- we have some substations, like St. Augustine we've had since the 1920s --

COMMISSIONER POLMANN: Sure.

MR. SILAGY: -- so we're not going to move it. And so it is in a storm surge-prone area. So all of those have actually been outfitted now with these type of storm surge and flood device protection systems. And then our substations have all been upgraded also on flood mitigation, those that are in the path of any kind of typical flooding that you'd see 100-year floods.

We're always analyzing and, of course, flood maps gets updated as well.

COMMISSIONER POLMANN: Right.

MR. SILAGY: And so we may end up with some future work that goes forward. We're also looking at new technologies and trying to make sure that we stay up to speed with what's changing out in the marketplace. And, frankly, every storm is different --

COMMISSIONER POLMANN: Of course.

MR. SILAGY: -- and so, you know, there's always learnings. And one of the things that we really work hard at the company is to have a culture of being open-minded and saying, you know, "You don't know what you don't know, and let's make sure we adopt and adapt

as much as we can."

COMMISSIONER POLMANN: And I appreciate you making the distinction and comments a few minutes ago about the type of damage that's different between wind and flooding. I think that's very important. I appreciate that.

MR. SILAGY: Yes. It's -- like I say, every one of these storms is a challenge and they teach you. Mother Nature, she's a hard teacher, and she'll teach you very quickly on some of these things.

I will tell you that the investments in the smart grid technology starting with the smart meter, which I know was not the most pleasant experience initially when we went through all of the hearings on it, but it has been game changing. It has completely changed the way that we see and view the grid. I've got engineers that have been with the company for 40 years that, you know, know more in their little finger than I'll ever know, and they will tell you without hesitation that they are blown away by what they're seeing in the data. And the opportunity it gives us for situational awareness to be able to respond more efficiently to storms as well is tremendous.

We would not have had the kind of response that we did in Hermine and Matthew but for the smart

grid technology, period. Just there's no way -- we've got a long way to go to get it completely outfitted. We're adding about 30- to 35,000 devices a year right now to our grid. I'll talk about a few of those. But being able to get that data and then, most importantly, being able to utilize that data. Big data doesn't do you any good if you're not able to actually do something with it and analyze it, and we're spending a lot of time on taking that data and then being able to deploy it in the field.

And the proof is in the pudding. I mean, Hermine and Matthew showed us some of these things. Automatic feeder switches, as an example, avoided tens of thousands of interruptions. But for that equipment, those customers would have lost their power, and instead they ended up with a momentary at worst and that was it.

We also saw that, as an example, in Matthew we had 412 poles in our entire system, and I won't tell you Matthew touched our entire system, but it came really close to touching our entire system because of the track, it was right up the eastern seaboard, we had 412 poles that were impacted; in other words, that it went over. None by wind and not a single hardened pole went over at all by wind or trees.

CHAIRMAN BROWN: Wow.

MR. SILAGY: So the hardened system actually -- we could demonstrate 30 percent more robust by being -- and it's hard to engineer against a 50,000-pound oak tree, it's just hard, even when it's hardened, but it does make a big difference. And we are very, very pleased to see the response to that.

CHAIRMAN BROWN: Can I ask you a question about the self-healing technology that's being deployed around the state and what FPL is doing? Automated switches, you're seeing that help prevent outages. Is there any other type of self-healing technologies that you're using?

MR. SILAGY: So automatic feeder switches, automatic lateral switches is much further down in the system at the distribution level. The smart meters are actually making a big difference because we're able to see what's happening in real-time as it comes through. The technology that we've put into the control rooms themselves, and a lot of this is in the algorithms that have been developed, some by others and some by our own folks. And we've actually patented a number of them, which helps you with not only seeing what's going on, but actually then getting into predictive and predictive analytics around failures that are likely to occur but haven't yet, particularly when there's already damage in

the system, and having a better understanding of where to respond first and how to get the most people up as quickly as possible.

And, again, you can see the difference in the response times. I mean, during Hermine our average time to restore -- we had 112,000 customers that were impacted because, remember, we serve all the way up to the Florida/Georgia line, including through the middle of the state, a very heavy tree area, and we had a mean time to restore of about three hours. We didn't have a single customer out for more than 24 hours. And we had 112,000 customers that lost power, but most of them were up in less than three hours. And part of that was utilizing the technology and then of automatically restoring them, but then also of actually sending the right types of crews to the right locations rather than basically search parties trying to figure out what the problem is and doing the analysis and then coming back a day or two or three days later to start the process.

CHAIRMAN BROWN: Absolutely. Yeah. I am a huge believer in these type of technologies and investment type -- in these type of technologies.

Commissioner Patronis.

COMMISSIONER PATRONIS: Thanks. When -- between the smart meters and the remote, the remote to

operate these switches, I guess, a lot of this, do you -- were you relying on the smart meter to let you know, hey, this area is out of power, or is it a combination of that and customers calling in and letting you know, or did you have to have a crew actually out on-site to notice that this is the fault and if we work -- if we fix this, then this neighborhood comes back online?

MR. SILAGY: Yeah. Interestingly, during hurricanes most customers don't call in because they kind of figure that it's -- we -- they expect to lose the power. We -- it's the smart meter that tells us.

You know, before the smart meter, we didn't know the power was out until somebody called. I almost hate to admit that to you because it wasn't that many years ago, but that's the reality of the situation at the time. Now we know instantly when there's a power interruption. That coupled with the devices on the grid actually tell us not just that the customer is out, but then we're actually able to start to triangulate where the problem is, i.e., this section of line -- between this pole and this pole we have a problem. And based on overlaying wind data as well as weather data real-time with the smart meter data that's coming in, we're able to get a pretty good understanding, you know, we

probably had a microburst here. This might be a tornado. This might be, you know, simply, you know, a tree stand that we know that's there because we're also using geo-spatial techniques using maps, Google Earth maps, and being able to get a really good idea of what's going on in the field near real-time.

COMMISSIONER PATRONIS: So as you get more -- Chair?

As you get more historical data, I mean, it's not data, I guess, you want to collect, but I guess as you get more of that historical data, I mean, you can be able to diagnose exactly what happened there. I mean, you almost can do an autopsy immediately.

MR. SILAGY: We do. We actually do forensic, you know, we do a forensic analysis afterwards. But also the importance of the historical data is that when you get enough of it, then you can actually utilize it for predictive analysis and you can start to predict the future within a certain range of certainty.

And in certain cases, it's, like, 90 percent. We're knocking on customers' doors today using smart meter technology and saying, "You know, Commissioner, you don't have an outage today, but based on the data that we're getting from your smart meter, we think you're going to have a probably in the next 48 hours."

And many times it's on your side of the meter, by the way.

COMMISSIONER PATRONIS: And -- oh.

MR. SILAGY: So we'll ask you to hire an electrician -- right? -- but we'll be able to give you an idea of exactly what it is because the smart meters actually produce over 300 different data points. It's not just the amount of electricity being used.

COMMISSIONER PATRONIS: Sure.

MR. SILAGY: And so if you start to see eight different particular points that are occurring over a certain period of time in a certain sequence, then based on historical data, you can predict that this is going to occur in the next 24, 48, 72 hours.

COMMISSIONER PATRONIS: And those smart meters, they don't necessarily communicate to each other via a phone line. They're basically a wireless repeater system?

MR. SILAGY: Yes, sir. There are different technologies that are out there used by different folks. In our case, that's correct. It's through a mesh network, so they actually do bounce off of each other. That way they don't have to rely simply on one cell tower, so we get some redundancy built in.

COMMISSIONER PATRONIS: And you know when one

goes out, you know that this is the, this is the culprit.

MR. SILAGY: Correct. And we built in technology in ours so it even has what's called a last gasp. So it actually has enough power that's built into the meter, it doesn't have a battery, but through the circuitry that it actually sends out a signal and says, "I'm dying." Right? And so --

CHAIRMAN BROWN: "Help me."

MR. SILAGY: But, you know, that -- yeah, "Help me." That's probably a better way of putting it.

CHAIRMAN BROWN: Last gasp.

MR. SILAGY: Because we do revive it, because we do revive it. You know, it translates all the way down even to what's on the truck. So every one of our, you know, service folks, they've got -- our linemen and women have an iPad now. And on that iPad is software that we developed partially internally and partially using externals. We use Google Maps. We didn't invent Google Maps. I wish we had. But we utilize Google Maps.

All the, all the homes and businesses are obviously on there. We developed a software that actually puts an indicator next to each one that turns green if the meter is working, it's red if it's not. So

after a crew comes in and restores power, let's say, in a neighborhood, and let's says it's middle of the night, you turn the -- you get the -- you remove the tree branch, it closes the breakers -- right? -- the power comes on. You can look down the street; you can see the lights come on. Five, six, seven years ago crews would pack up and they'd leave. And it's the middle of the night, so, you know, the air-conditioners come back on and neighbors are happy except in the middle of the neighborhood two houses don't have power. They can't see that until the neighbor wakes up and looks out and sees that their neighbors are on and they're not, and they're not happy and they call. That's when you get the call, and hopefully they get a nice customer service agent who goes something like, you know, "I'm sorry you're out of power, Commissioner, but we've dispatched a crew and power has been restored to your neighborhood." And the conversation is not real pleasant because it's, like, "Well, maybe, but not to my house." Right?

And here, before our crews leave, they pull out the iPad, they push a sync button, it sends a signal to everybody and it says, "Are you on?" And each house comes on and says green, green, green, I'm on, but they would have seen those two houses that kick on red

because those meters aren't communicating. They would drive down the street, they'd probably find the pad-mounted transformer fuse is kicked out, reset it, hit the sync button, it's green, they pack up, now they leave. The customer never knows that they were, a few years before, going to be out there. And by the way, a few years ago we would have called another -- you know, the crews would have moved on to the next neighborhood -- right? -- because the storm isn't isolated.

COMMISSIONER PATRONIS: Right.

MR. SILAGY: I would have now had to pull crews off of one job to go back to a neighborhood not knowing where the problem is, search for the problem, find the problem eventually, and then restore the problem. The customer is not happy because they've been out of power for hours more. All right? I've spent a lot more in overtime, other customers have been negatively impacted because their restoration times are longer because we pulled them off, and, oh, by the way, I lost revenue the whole time as well, which is bad for everybody.

So, you know, there's -- it's -- the O&M savings are tremendous. The technology is changing the way that, frankly, we are running the business.

COMMISSIONER PATRONIS: What about morale, you know?

MR. SILAGY: Look, you know what, I will -- I can tell you story after story of going into the field and talking to crews that are just dead tired, having been restoring power, and saying, "Thank you." And the response is almost universally, "No problem. This is what we do." Right? Our crews and every crew that's in this business, whether they're FPL'ers or Gulf Power or anybody else, they love getting people back up as quickly as possible. Its what's they do. So they're frustrated when they don't have the tools to do it. Morale has tremendously improved because they feel as if they're empowered. They have the right weapons to win the battle.

So I'll flip over the Matthew slide because that's stark enough, you saw how big it was, but it was a monster storm. And, look, it impacted the whole state, but we dodged a bullet from the standpoint of 35 miles to the left and it would have been a whole different story from the standpoint of devastation. But obviously we don't know that when we're preparing.

This was a Cat 5, then Cat 4 storm. We deployed the largest pre-deployment we've ever had. You can see these numbers. It was material. This is like

moving an Army, and the logistics are significant. I want to take just a second to thank Leo, Bryan, the state, everybody pulled together on making this happen. You cannot move this amount of equipment down interstates and turnpikes and through rest areas and do, you know, refueling alongside the interstate so we don't lose time, food, water replenishment, tools, equipment, without the support of everybody along the way: at the county level, at the local level, at the state level, even at the federal level.

CHAIRMAN BROWN: And even especially the governor and his support and being at the EOC and being on the ground around the clock. His leadership really --

MR. SILAGY: There is no substitute for leadership from the front, and the governor demonstrated that. And, you know, I tell you it sharpens and focuses your mind when you know the governor is going to call you at least twice a day.

CHAIRMAN BROWN: And the folks at the PSC.

MR. SILAGY: And so, you know, and I appreciate it, I really do, because -- and his first question invariably was, "What can we do to help?" It wasn't about micromanaging the process. It was, "What do you need? What can we do to help?" And you just

can't ask for anything more than that.

So, you know, it paid off. Again, restoration times, we saw the number of outages from a technology standpoint make a difference. We did not lose customers, like 118,000, from the smart grid technology. We utilized other technologies like the mobile command centers.

You know, again, this is like, this is like a battlefield. And so having situational awareness of what's going on in the different areas, and particularly when you have a footprint of the storm the way we did, we had nearly everyone in 35 counties impacted. And so I had to have resources that also flowed behind the storm as it went through and be able to be nimble and mobile.

One of the big lessons that we had in this storm was the fact that we were actually restoring so quickly, we outran our coverage a little bit, if you will, on logistics. As I said to our head of our power delivery at one point, I said, "You know what? You outran your supply lines. I mean, you're a little bit like Patton and you outran it." It's a high quality problem, but it's nevertheless a problem. So because we moved so fast so much equipment, we actually had a tough time keeping up with some of the food, tools, and water.

But we got there. We learned how to do that. Even things like drones, unmanned aero vehicles helping us get, again, eyes on areas that are hard to get access to were terrific.

This is the substation I was talking about earlier on a beautiful day. This is not what it looked like after Matthew. This thing was covered in three to four feet of water. And we actually proactively de-energized that substation. We put 8,000 customers in the dark intentionally. It is one of the hardest things for our electrical engineers to do. I mean, it's like watching them, you know, pull the plug on somebody. They're just like, "I don't want to do it," but they did it. And because of that, we were able to restore power much faster because we didn't have to replace equipment. We had to water wash it because it was saltwater. So you quickly water wash it, and then we actually ended up -- we did replace one piece of electric equipment, a small one, and it took a couple of hours instead of losing two days and honestly tens of millions of dollars. Because when it's energized, it gets destroyed if it hits with water. We didn't have to replace any of the major components and pieces of equipment. So it was -- that's, again, a learning from Sandy and something that we had never done before as a company.

COMMISSIONER PATRONIS: A question. Do you learn not to put substations by marinas anymore too?

MR. SILAGY: Generally the answer is, yes, we do. We have some conversations about that.

COMMISSIONER PATRONIS: Sometimes you don't have a choice.

MR. SILAGY: But, you know, what's interesting is when we had that substation, we built that one, I believe, in 1925.

COMMISSIONER PATRONIS: I was about to say, yeah, yeah.

CHAIRMAN BROWN: I was going to say, is that FPL's?

MR. SILAGY: It was a passthrough (phonetic) there. So -- but, you know, what we did see was a very different type of response by the numbers here. Now, again, I would caution you in saying that every storm is different. Right? Wilma was also a very different storm both in track and intensity. But we also had a -- we did not have a hardened system. We also did not have the technology, and we also didn't have the learnings that we've embedded within our own company over the years.

CHAIRMAN BROWN: So I have to ask you, my colleagues from around the country have watched what

Florida has done and they watched the restoration, this particular slide that you have up here about Matthew with the 98 percent of customers restored within two days. They just ask me, "How did the company do that?" And I give them a long, lengthy answer about the history. But is there something that you -- other than, you know, the smart technology that's being implemented, the lessons learned, is there something that you can just say singularly that is the reason why you jumped from a 55 percent in '04/'05 to almost 100 percent restored in two days?

MR. SILAGY: Besides different thinking culturally -- I mean, it really is about how you approach the storms. So pre-staging, getting material and people in before the storm. The way that typically, I won't speak for the others, but I can tell you what we did in Frances, Charley, Jeanne, Matthew -- Wilma, excuse me, the others, you know, was you waited for the storm to hit and then you went out and you did damage assessment and then you figured out what resources you needed to backfill what resources you already had within your company or within the system.

We don't approach it that way anymore. We actually -- and we've had to have some very hard conversations with some of our vendors and even other

utilities where we actually asked them to come in in advance of the storm and bunker down. Now that means we've also had to invest in our service centers becoming more storm hardened because I want people in the service territory riding the storm out just like I do in the command center and securing the vehicles, securing the equipment so the minute that winds drop below 35 miles an hour, the storm hasn't even passed completely, we are mobilizing crews.

Now even when the storm is in full rage, we're now using technology to restore people as best we can remotely. But as soon as we can safely get people deployed -- we're not waiting for the storm to pass. We're actually chasing the storm, if you will. So in this case, we started in South Florida. We brought in crews and prepositioned them in South Florida. We also prepositioned them in West Florida. Based on the track of the storm, we did think it was going to hug the East Coast, so we put crews over in the Sarasota, Bradenton, Orlando area. We had crews right on the Florida/Georgia line in Lake City, and then we had crews down in Miami. Knowing that depending on how the storm exactly turned, we could then flow troops, if you will, from the south and then bring them over from the west. And then as the storm passed, start to backfill them from the north

because the folks from the south will have been, you know, in the field for 40 hours at that point.

And so it's a little bit of a fencer movement, if you will. It's kind of like looking at, you know, how you move the troops into place, but you can't do that if you don't have, if you don't have the people and the equipment in place beforehand. Because once the storm looks at that track, we didn't get anymore help from anybody in the northeast. There wasn't a utility in the northeast that would release any resources because they need to take care of their own.

And then, you know, remember, you don't know exactly where the storm is going to go. So if it starts to cut across and goes up through the Panhandle and into Alabama, then we lose crews from Texas, Louisiana, Mississippi that would normally come in to help, but they have to wait until it passes and then they start to move. And this is a lot of equipment, so by the time they get to you, it's four days later.

So it's -- the risk is that you have a blue sky event where, you know, Matthew makes a hard right turn and goes out over the ocean and we end up with, you know, a Joaquin.

CHAIRMAN BROWN: Right.

MR. SILAGY: Right? And deploying that many

people is not inexpensive. I've got to pay them from the minute they get in their truck until they get back out of the truck back home. So, you know, it is -- you end up with some potential for folks saying, "Well, wait a minute. How is it that you spent millions of dollars and we didn't even have a storm?" It's a judgment call, and I will tell you it's one that you think about.

CHAIRMAN BROWN: Thank you.

MR. SILAGY: I guess the one thing I'll tell you is that, you know, we are -- I view this as we are Team Florida.

CHAIRMAN BROWN: That's our line.

MR. SILAGY: This is not FPL. And, you know, one of the things I'm most proud about is how the utility industry comes together and works together to help each other. Because the customer is -- this is all about getting the power back on, which is fundamental to the way that we all live our lives. And the faster that we can restore our facilities and get our customers back up, then the faster that we're able to actually pivot and help somebody else. And that's what we did in Jacksonville, and I was very pleased -- Jacksonville actually called us when the storm was going on and said, "Look, we need help." It's not easy --

CHAIRMAN BROWN: Commissioner Graham has got a

question for you.

MR. SILAGY: Sure. It is not easy to ask for help sometimes. And, you know, I will tell you that Paul and his team didn't hesitate. We couldn't give it to him on day one, but we were there on day two and didn't leave until the job was done, until they kicked us out, because, you know, it's important to actually work together on this.

Yes, sir.

COMMISSIONER GRAHAM: Well, you figure, you mentioned Jacksonville, I have to say something.

So what happened, what happened during Hermine? It seems like there was a huge disconnect in Tallahassee. And I know there was a lot of stuff in the paper, and you were in the middle of that and the governor in the middle of that and the mayor here. What happened?

CHAIRMAN BROWN: You've got to love Commissioner Graham. You've got to love him. This is why we love him.

MR. SILAGY: Yeah. So first off, you know, to the mayor's defense -- right? -- first time going through this, and the mayor is relying on information that's provided to him by folks that are with the utility. And to be fair to the leaders of the

Tallahassee utility, first time they'd been through, you know, an event like that in a long time. I --

COMMISSIONER PATRONIS: 1986.

MR. SILAGY: You know, yeah, so a long time. I think there was a, there was a, there was a fair amount of miscommunication, but that's really led by the fact that there were folks who really didn't have the situational awareness of what was going on in their system and, therefore, they made what they thought at the time were the best decisions based on incomplete and bad information. Where that came from was different, you know, elements that didn't have smart grid technology. They probably, and I don't know this for a fact, but, you know, the pole inspection program probably wasn't as robust, and so they had a lot of damage, they had some tree damage.

But, you know, there is -- look, storm restoration should never be political ever, in my opinion. This is about getting customers back up, anybody's customer. I don't care whose customer they are. It's about Florida getting the lights back on. And then after that, it's about helping people in other states too, and it should never be political. And unfortunately it became political and it became, you know, a tug of war, and I think unfortunately

Tallahassee residents suffered because of that. And it's easy to be critical in hindsight because, you know, it's a lot clearer, as it always is, but this is where the -- this is where our training, this is where drilling and working like we do with the state as an example on this -- you know, we go through storm dry runs every single year. I don't know that Tallahassee has done -- I don't know. I mean, I'm guessing they don't because I don't know about it, but maybe they did. But, you know, I could tell you they didn't coordinate ever with us.

I had 575 crew in Lake City. That's not far away. That's our territory. And we were done with our restoration and I offered those crews, and they just didn't think they needed them. They made a judgment call, which in hindsight ended up being the wrong call. I don't think there was anything malicious about it. I just think that, you know, unfortunately there were elements that were uncomfortable asking for help and reaching out and taking that help from folks that they hadn't worked with before.

And so one of the things that we're working on right now with all of the municipals and co-ops is actually on having agreements in place so we can cut through all of that and not have to worry about mutual

assistance agreements, how do you get reimbursed, you know.

CHAIRMAN BROWN: Good.

MR. SILAGY: Because I know there were concerns around safety, as an example. And those are legitimate concerns, by the way, if you don't -- if you haven't prepared. We unfortunately have a lot of storm experience, and so we knew how to manage that. And I did try to articulate it, and I probably didn't do as good a job as I could have and being as forceful and saying, "That's a concern that you shouldn't, you shouldn't be worried about." Right?

But, you know, there's -- you try to be deferential to other people's territories, if you will, and areas. And so when they said, "We don't need you," we said, "Okay." We did reoffer five times to say, "We'll come back in." And eventually some of our contractors were the ones who actually came in to help because the governor brought them in. To the governor's credit, he was relentless about it over and over again, and unfortunately I think that did fray some nerves too. But I think he did the right thing, by the way.

COMMISSIONER GRAHAM: I applaud the Chairman for having both FMEA here, Ms. Zubaly, and the co-ops here, Mr. Willingham, so we can continue the dialogue,

and also the governor for bringing everybody together after, I mean, after Matthew went through.

CHAIRMAN BROWN: Yes. Yeah.

COMMISSIONER GRAHAM: The question is what other things should we be doing now, I guess since you're here in front of us, to make sure that that disconnect that we had last year doesn't continue happening over and over again?

MR. SILAGY: So Gulf Power sent in crews here and they brought them in right away, which was terrific. I will tell you that we would all have been better off to have mutual assistance agreements in place and signed. And the teams are working on that now. I am paid to be paranoid, but it is the end of April. There is already a tropical system out in the Atlantic Ocean and we don't have a mutual assistance agreement. And Hermine happened in September. I remember because I was here. We need to get that done.

CHAIRMAN BROWN: So were we.

MR. SILAGY: There is no reason that it takes thing long to get things done. I'm not suggesting that you don't need to be thoughtful about it, but it's not -- this isn't new ground to be plowed. So we just need to get that done. And then we need to also do a better job as an industry on working together to train

together and drill.

I have a storm drill every year. It's in two weeks, the first week of May. So ten days; right? And we invite people from across the state. Other utilities have come in and worked with us. We would welcome anybody also from, you know, from municipals and co-ops because, again, there is no substitute for having gone through as much in an anticipatory way as possible in how you communicate, how you would deploy crews, because Mother Nature will always throw you curveballs. And if you can drill on all things that are expected because you've either been through it before or the models tell you it's likely, it creates bandwidth to deal with the unexpected.

CHAIRMAN BROWN: Commissioner Patronis.

COMMISSIONER PATRONIS: Just -- and Commissioner Graham kind of stimulated this question. Your -- you've got the biggest footprint, so you see the most varying forms of topography here, and then you also participate in restoration in multistate areas. Because of that, do we have varying degrees of vegetation management in the state, and do we need some type of standardization from both a municipal, co-op, and IOU level?

MR. SILAGY: That's a very good question that

I can't answer. I would assume the answer is, yes, we have a varying degree of vegetation management. I don't know the answer as to whether or not the standards are actually different. Obviously you set the standards on the IOUs and we report out those and we report the progress, and -- but I'm not an expert on these co-ops that -- I would -- I'd let them answer that question.

But there are standards that are out there also, just industry standards. And they're not perfect; right? I mean, you can have a tree that's tall enough outside of the right-of-way that still goes over. But vegetation management is something that as a state that has, in most parts of the state, a 12-month growing season, it is something that is a real and continuous challenge that we have to be proactive about. And it's not just about how you do it. It's even looking at different ways of doing it and technology. And, you know, we're challenging our own thinking about this as well. And it's not because of the hurricanes because we're actually okay on that, but it's, you know, it's every day. It's everyday reliability.

So, yes, I would tell you -- I mean, look, Tallahassee was largely a tree event, from what I have seen. But, you know, the -- I think the highest gust winds in Tallahassee were about 60 miles an hour or

tropical storm. It wasn't a hurricane; right? And I think the average was in the mid-40s. So, now, some areas are really tough to get vegetation management. You know, old growth in beautiful neighborhoods, you know, you can get yourself sideways with some neighbors when you go in for vegetation management.

CHAIRMAN BROWN: Absolutely, everywhere.

MR. SILAGY: So it's very hard. The best time to do vegetation management in those areas is right after --

COMMISSIONER PATRONIS: Dead of night.

MR. SILAGY: Well, no. That too, but the dead of night when the power is out.

(Laughter.)

COMMISSIONER PATRONIS: Right.

MR. SILAGY: Right? Because people --

COMMISSIONER PATRONIS: Mother Nature kind of did her own vegetation management.

MR. SILAGY: They did, and people are a lot more open to have their tree trimmed if that's what it takes to get the power back on.

COMMISSIONER PATRONIS: Sure.

CHAIRMAN BROWN: So, Mr. Silagy, we could ask you questions -- we're getting you all sidetracked, but we've got a few other speakers. So if I could --

MR. SILAGY: I will, I will just flip through. There's nothing else really. I mean, again, this is what I was talking about. It's very close coordination with local leaders.

Communications, I know, is a focus for you on this. And I will just tell you that, you know, one of the -- probably the biggest learning that we have from the '04/'05 season was on communications because we did not do a good job of that, in my personal opinion. And a lot of things have changed, a lot has changed.

CHAIRMAN BROWN: Social media?

MR. SILAGY: Yeah. Well, just the fact that in 2005, you know, the iPhone didn't even exist. And so, you know, the internet, you know, was not something that was pervasive. We are now communicating across an entire different spectrum than we did before, utilizing, obviously, the traditional mediums, TV and radio, but also Facebook, Instagram, Twitter, and doing a lot of it proactively.

You asked earlier what are some of the things we do differently? Proactive communication, trying to get our customers to focus. 40 percent of our customers have never been through a Florida hurricane, 40 percent of 10 million people have never been through a Florida hurricane, and they don't know what to expect. They

think they do, but they really don't. Trying to get them to focus, trying to get them to be prepared, to have a plan, to make sure that they can, you know, hunker down with their families and work for a day or two with us until we can get the power back on at the very least is a real challenge, but something that we're being proactive on.

And then, you know, during the storm and then immediately thereafter the storm finding ways to communicate with customers, even back to the traditional stuff of even setting up kiosks in the neighborhoods where people can come in and actually meet with somebody and say, "What's going on?" and, you know, "How long is it going to be?" and, frankly, bringing them ice and doughnuts and things like that where we can because they're our neighbors -- right? -- and so we want to try to do that.

CHAIRMAN BROWN: I hate to stop you, but Commissioner Brisé does have a question for you.

MR. SILAGY: Yeah. Yes, sir.

COMMISSIONER BRISÉ: So I think maybe this slide, and I don't have the number, use Facebook Live to amplify messages may address the effectiveness of the communications; right? I mean, because you want to know if you make that investment in the communications, how

effective is the communication? I don't know if this storm, of the two storms that we had this summer, would be the best storms to be able to gauge the effectiveness of the communication. But from your perspective, how effective do you think the outreach to the customers has been in terms of interacting back with you or the public doing what you're asking them to do in preparation for the storm?

MR. SILAGY: So I will tell you that the reaction from the public was very strong and positive from the standpoint of the outreach. We actually did robocalls, as an example, to all of our customers more than once. And, you know, most people don't like getting robocalls. This was not the case. We got very positive feedback on that. Facebook and Twitter was, you know, two-way communication. So that was very good.

How do customers respond and prepare? Much harder for me to answer. We had customers say, "You know what? I wasn't doing anything until I actually got that second robocall, and then my wife said, 'You know what? We're packing up and leaving.'" Right?

And so there was -- clearly it made some difference. I think we can continue to do more, and we're trying to measure that. But, you know, our latest customer stat, which still is reflective of some of

this, you know, is 96 percent on resi and 93 on business. So, you know, I think it's cumulative, but I think our customers want to know that we're looking out for them without being too intrusive, and there's a balance there.

COMMISSIONER BRISÉ: Sure.

MR. SILAGY: But when it comes down to storms, I almost think it's hard to be too intrusive. I think from a safety standpoint it's too important.

Figuring out ways to coordinate with the state and federal government on this too, and local governments, will be important, and engaging the media, the media itself. And we do that, frankly, through a storm dry run, which I will formally invite all of you again. You're welcome to come down and spend as much or as little time. But, you know, we have 9,000 roughly employees in the state. They all have a storm assignment. Everybody has a job. I also make sure that -- I encourage them repeatedly to make sure they have their own personal plan and their family's plan because, frankly, I need them to take care of their families first, and then I need them to go back to work to get our customers back up. And so we work closely on that. And then constantly trying to push ourselves and figuring out how can we be better at the communications

because it is very dynamic in doing that.

CHAIRMAN BROWN: Yeah. Thank you. Excellent job. Thank you so much for your time.

MR. SILAGY: No problem. Thank you.

CHAIRMAN BROWN: Thank you. And, Commissioners, any last questions before we move on?

Again, thank you for your time. Appreciate it.

MR. SILAGY: You're very welcome.

CHAIRMAN BROWN: All right. Next up, Mr. Stan Connally. Come on down.

MR. CONNALLY: Good afternoon.

CHAIRMAN BROWN: Good afternoon.

MR. CONNALLY: Commissioner Patronis left. He's the only --

CHAIRMAN BROWN: He did. I think he did that on purpose. He's like, "It's just Stan."

(Laughter.)

MR. CONNALLY: Madam Chair, if you don't mind, I may bring that back up when he comes back.

CHAIRMAN BROWN: Please do. Please do.

MR. CONNALLY: Look, I figure --

CHAIRMAN BROWN: We could just hold off now and wait for him and be very, very patient.

MR. CONNALLY: No, no, no. We can move on.

Look, maybe that's a sign that, like others of you, you've had enough of Gulf Power Company in the last six months.

COMMISSIONER POLMANN: Oh, no.

MR. CONNALLY: I'm going to work to get us back on track.

COMMISSIONER POLMANN: I was really looking forward to a hearing.

MR. CONNALLY: I know you were. I know you were. And maybe one day way into the future we'll give you that opportunity. No time soon, I hope.

So, look, I want to -- look, at some point all of us could say ditto to a lot that you're hearing here, and I appreciate --

COMMISSIONER POLMANN: The Chairman loves that word.

CHAIRMAN BROWN: I do.

MR. CONNALLY: You've used it before. We've heard.

Look, I do want to call out a special ditto and thank these guys over here in the corner, Bryan and Leo, for their work on behalf of our state. We all are teammates in a bigger conversation about restoring our state in events like this. And many times, whether it's in South Florida or North Florida, we don't always get

to see what each other is doing, but these are the folks who are always at the tip of that spear. And I want to thank them again from Gulf Power Company's perspective in Northwest Florida for all they do.

And this Commission, I mean, you're members of the team. And I think as we communicate better, learn and grow together better, these kinds of forums really do produce new ideas. I took several notes just sitting back there listening to Eric talk, and I'm sure we'll do that with each other throughout the day.

CHAIRMAN BROWN: Good.

MR. CONNALLY: So, look, Gulf Power's presentation is really more about a culture of preparedness. I'm going to spend a little bit more time proportionally talking about customers and communications than I did last year because I think that is one of the focus areas you wanted us to spend some time on this year.

CHAIRMAN BROWN: Yes. Thank you.

MR. CONNALLY: And as I talk about a culture of preparedness for Gulf Power Company, it always starts with safety. And in events like this we've got to keep safety at the forefront, not just of our own teammates but of the public at large. And as you're going to hear, in any type event, whether it's a hurricane or

it's an ice storm, there are safety risks to our state, and we've got to be at tip of the spear helping manage that and helping lead safety for our communities, but really focusing really hard on the recognition that this is about restoring hope at times to some communities. And that sounds a little Pollyanna to say that, but I've lived enough of these storms and gone through enough of these where you're days into it and people don't know what to do next, whether it's return to school or return to work or return to home. And we are at the tip of that wanting to make sure we're helping restore hope.

And so that culture of preparedness really goes year-round. And as it relates to communications, I can't help but say that's for all of us, not just Gulf Power, an everyday communications objective to make sure we're getting customers the information they need when they need it as easily as they need it and, you know what, in the way that fits them best.

And the definition of ways that fits them best is changing so much. It's not just generational. It's technology driven. And we have to be flexible with how we're communicating with customers not just on blue sky days where you've got a family that's just logging on to help pay their bill. It's really during these storm events because you never know what the right

communication channel is going to be for a particular customer, so you've got to use them all and hope that you're touching every customer the way they want to be reached and communicating in a two-way form.

CHAIRMAN BROWN: And, Mr. Connally, I'm sorry for interrupting, I hope you don't mind, but, you know, as Gulf Power is one -- you know, a part of the larger Southern system, I'm curious how you interact with Southern in storm preparedness. Because obviously Gulf is the leader of the Southern Companies in storm preparedness and how that -- how you interplay with each other during a storm like Hermine.

MR. CONNALLY: Oh, sure. And I can give you some examples as we go. But on a general basis, and I've got Paul Tally here with me today, he's one of our storm leaders, they are constantly interfacing within the Southern Company family on storm preparedness. Now that relates to the bigger Southeast Electric Exchange teamwork that we have among all the utilities. But within the Southern Company we have our own mobilization plans because, first and foremost, we can call on the Southern Company teammates to come help us. And so if Gulf Power has an issue, we obviously have our own in-house team to the west, to the north, and to the east that we call on. So we've got to have that plan greased

all the time, whether it's logistics, whether it's manpower, whether it's communications, and there are times we transfer communications to each other. And so, yes, I think the Southern Company benefit we have is it gives us that bigger body of a team that we can work with.

CHAIRMAN BROWN: Has AGL, the acquisition of AGL had any effect on that interplay?

MR. CONNALLY: So far not as much. It's still very early in that engagement. But obviously during Matthew one of at AGL's subsidiaries, Florida City Gas in Hialeah, was impacted, and the electric side of Southern Company was able to offer help where we could, whether it was communications or logistics. I think we will benefit each other that way along the path.

CHAIRMAN BROWN: Thank you.

Commissioner Patronis, you're back.

COMMISSIONER PATRONIS: I am.

CHAIRMAN BROWN: Good.

MR. CONNALLY: Just in time to talk about his own territory; right?

COMMISSIONER PATRONIS: I didn't want to distract him.

(Laughter.)

MR. CONNALLY: I think Leo did a very nice job

of kind of giving the range of natural disasters and manmade events across our state. These are just a few. The one you did not list was ice storms. And maybe we're the only in the state that has experienced that. I never thought we'd experience an ice storm when I came to work at Gulf Power Company, but back in 2014 we did. And so we have to be prepared year-round, not just for wind but for ice and floods as well. So I just wanted to point out that it's that wide variety of things we have to be prepared for.

So, look, as I transition here, I'll spend just you a brief moment on our system, making sure we continue to do the right things around storm hardening. We, too, have invested in our network, our grid in ways much like Eric described and much like you're going to hear from others.

Just a couple of highlights. On our transmission network, we continue to ensure that every new transmission investment we make is at extreme wind loading kinds of criteria. Making sure the old wooden crossarms are replaced with the steel crossarms, and we will finish that this year across our entire network, across those 5,600 structures. And in our distribution system, everything we build today or everything we replace today through our storm hardening inspection is

at Grade B construction, which is a higher wind loading that accounts for those higher winds or ice conditions. So every single year as we build onto our system or replace an aging system, it's becoming more and more storm hardened.

I didn't list all the electronic devices. We are almost 100 percent now advanced meter infrastructure. Just a very few customers left to make that transition. So like you heard, we have the technology at our fingertips, not just at the customer's premise but at every point of intersection along our grid to know what's going on and how to interface with our customers and restore service. And so storm hardening is a big deal. And it really has led to not just preparations for storms, but in everyday improvement in our reliability of some 40 percent since 2010. So it's delivering results even though we haven't had the major storms like we had last summer, the major hurricanes.

Also preparing our people. And I would -- I'll go straight to Commissioner Graham's question about what might have happened here locally. I think it's an example of practice makes perfect in a lot of ways. We've already talked about the fact that the City of Tallahassee had not had an event in many, many years.

And I can't speak to how often they practice, I'm sure they do, but one area that I think as we prepare our people, and I'll just point out, we've traveled 36 times since 2008. That's from Texas to New Jersey. We learn something new from every time we travel. We learn something new every time we travel to a sister Southern Company facility. Every storm is different. And so I think that practice does make perfect. And while you never want one of these to happen, it's nice to have had the practice when it does happen.

And it's not just our linemen and women. It's our engineers. It's the team that go out and help set up staging sites, logistics, and operate as a big Southeast Electric Exchange when we do that.

We were very, very fortunate in the eight Northwest Florida counties to not experience any direct hit from a hurricane last year. I remember waking up at 3:00 a.m. as Hurricane Hermine was hitting landfall, looking at my own outage map, and saying, "That can't be right." There was one customer off in Bay County, and that was the only customer we had in the entire Gulf Power footprint. I called the storm center, "That can't be right." They said, "No, it stayed on course and went ahead and went up through the rest of the state," unfortunately for the rest of the state but fortunately

for us. So what that turned for us is an opportunity to go help.

CHAIRMAN BROWN: Right.

MR. CONNALLY: And we were able to come and help our teammates here in Tallahassee. We were able to go help Jeff and the team at FPU in Fernandina Beach, as well as help our sister company, Georgia Power Company, during both storms.

And, look, I'm proud of the men and women that work for our company. Remember, this week -- the 18th was National Line Worker Appreciation Day. I know we'll have one within our own state here later in the summer. But those men and women work so hard. As Eric said, they build an awful lot of pride in going to help others. They're leaving their own families to go help others get the lights back on. And it's nice when they're recognized for that. Our industry association, the Edison Electric Institute, does have awards to recognize utilities when they do that. And it's not about Stan Connally, it's not about our VPs, it's not about our managers. It's about the men and women on the trucks and the folks that make it happen. And we're honored to recognize them, and we were recognized in 2016.

CHAIRMAN BROWN: That's great.

MR. CONNALLY: Then transitioning to our customers. And, look, I think it's just so important that we continue to think about how our customers are prepared for, how they deal with, and how they respond after a storm. I'll tell you, one of the greatest fears I have for Northwest Florida is we haven't had a major storm in ten years or longer now, and a significant portion of our residents don't know what the aftermath of a storm looks like. And whether that's transitioning military, and we're heavy military in our area, and the families that come in and out, or just people that just weren't there ten years ago, them being prepared for a storm, I think, is vitally important for our communities. We take that very seriously.

You see in customer engagement before the storm a variety of ways we try to do that in partnership with our communities, with our media. But I, again, think helping our customers get ready not just for how we're going to respond but how they should be responding and what they should be expecting is really, really important.

CHAIRMAN BROWN: Well, and you say expecting. Customers don't understand the 72 hours. Okay? And so how do you get that message across to prepare? You do it at the beginning of the hurricane season. Do you do

it year-round? I see right here you've got this app now --

MR. CONNALLY: We do.

CHAIRMAN BROWN: -- which I think is -- that's excellent. I think that's something for a lot of these folks that have not faced a hurricane or a severe storm in their entire time in Bay County.

MR. CONNALLY: Right. Well, look, I think just public service announcements that talk about here's how you need to expect the storm to impact your area, here's how you need to expect us to respond in the first 12, 24, 72 hours. It might be videos that we use on social media to say, "Here's what we're doing at this point in the storm." It's embedding reporters with us as we do those kinds of things. It's reporting out on our preparation, our drills. I've got a slide in a second I'll talk about embedding the media with us on drills so they can go back and report what Gulf Power is preparing to do. It's a multitude of ways you can do that. But I think it's important that we partner with our communities because many of them are going to their county EOCs, their state or, excuse me, their city municipal officials asking questions, and they have to see us acting in unity locally, as well as in unity here at the state EOC. So I think it's just a multitude of

different ways you can do that.

CHAIRMAN BROWN: Commissioner Polmann has a question for you.

MR. CONNALLY: Sure.

COMMISSIONER POLMANN: I was very enthusiastic a few minutes ago with Eric's comments and now yours about how well you're doing in responding, how quickly you were able to bring customers back online, and now I'm very concerned with both comments.

We have a lot of people who have not been through a storm or we've been so fortunate not to have a major storm, and the concern is, and I'm saying this a little bit in jest, but, in fact, it's very real, that there may be a false sense evolving that even if the power is out, it'll be back on very quickly, that there is a lessening of concern that the power is going to be out for three days or four or a week because you're doing such a good job.

MR. CONNALLY: The bar is very high. The bar is very high, and I think that's a valid concern because we just have to remember every storm is different.

COMMISSIONER POLMANN: Well, of course it is. But people who have never been in a storm who don't know --

MR. CONNALLY: Right.

COMMISSIONER POLMANN: So there's -- you keep telling them be prepared, be ready, get ready for three days and they have no experience. How is the industry going to continue to persuade folks that they -- every storm is different and we really need to be, no kidding, prepared for three days?

MR. CONNALLY: Well, just to qualify, I think we're very careful about saying be prepared for three days.

COMMISSIONER POLMANN: Well, I understand that.

MR. CONNALLY: You understand that, and I think our state has to be cognizant of that. I absolutely agree that the sooner we can get the lights back on with aggressive targets, it pushes us all to be better. Right?

COMMISSIONER POLMANN: Of course.

MR. CONNALLY: Aggressive targets absolutely make you push to get logistics, get people you need. But I think as storms approach, we've got to be very transparent with our customers and our communities to -- I lived through Hurricane Katrina in coastal Mississippi. I actually was in Gulf Port, Mississippi. I stayed there working for Mississippi Power Company. There was no doubt in anybody's mind when that storm was

approaching, and the communities and the utilities were communicating, "This isn't your average storm. Number one, leave." And I think our governor and our state officials play a huge role in getting that message out. And I think our governor has done an excellent job over the last few years of helping promote those kinds of actions. But it takes a coordinated message of "This storm is not like the one you saw last time," being relative here, "let's prepare ourselves for something that's much worse, much different," and setting an expectation, though aggressive but realistic.

And I think we have enough experience in the industry to look at certain types of storms with flood, potential flood surge and those potential winds to say, "This isn't going to be your everyday three-day turnaround storm." We've just got to be on our toes to communicate that going into events, with the recognition that every event is different.

I don't personally want to overestimate how long it's going to take to get the lights back on because you'll have businesses make tough decisions about their own livelihoods, you'll have families travel maybe excessively long distances. But, frankly, I'd rather err on that side for safety reasons than I would err on the side of this one is going to be minimal.

I think we just have to be -- use judgment on every single storm, Commissioner, to help prepare the field, if you will, before the storm makes landfall. You have a very valid concern. Our bar is high in Florida. I'm glad you're getting great feedback from Commissioners around the state, around the country.

CHAIRMAN BROWN: Yes, oh, yes.

MR. CONNALLY: And we have an obligation to keep that bar very high. We also have an obligation to be very transparent with our customers when we see it's not going to be the same as an average storm.

COMMISSIONER PATRONIS: I just downloaded the app.

(Laughter.)

CHAIRMAN BROWN: Commissioner Patronis is checking out your app.

MR. CONNALLY: Very good. Very good.

COMMISSIONER POLMANN: I appreciate those comments and what Eric said. The utility overprepares. I think -- and what you're doing to get the message out, the community needs to prepare. Even though your intention is to restore power as quickly as possible, they need to be prepared because there will be customers in a bad storm that you can't restore as quickly as others.

MR. CONNALLY: Absolutely. Absolutely.

COMMISSIONER POLMANN: And those folks who may not get their power back on in one day, two days, three days.

MR. CONNALLY: Yes. And then part of that pre-storm communication, we help them understand where our focus areas are going to be.

COMMISSIONER POLMANN: Right.

MR. CONNALLY: So that if they're on the tail end of a line on a dirt road 20 miles away from a substation, that that priority may be different than the hospital -- or will be different than the hospital.

COMMISSIONER POLMANN: Of course.

MR. CONNALLY: So communicating those expectations is important.

CHAIRMAN BROWN: Thank you, Mr. Connally.

COMMISSIONER POLMANN: That's the key.

MR. CONNALLY: And, look, I think this next point on our website I think helps drive that home. Our strategy is when the storm enters the Gulf of Mexico, we very much start ramping up those conversations on our website and other applications. This is just one.

And I'll just point out here, you know, it's amazing how many different technologies people carry around in their pockets these days and how they want to

be communicated with, and all of our communications platforms have to be so flexible to interface with every single one. And we're continuing to get better with that. We launched our own new website earlier this year that helps us do even better than before.

CHAIRMAN BROWN: That's good.

MR. CONNALLY: Media relations is huge. As I said earlier, we embed media with us. Not just in the drill but also during the storm. And what you see on the right here is the media is using our tools to communicate out to customers. And I got to tell you, that really helps us keep the message consistent. Commissioner Patronis, last year you gave me a hard time for not having Panama City and Bay County on the map, so there you go.

COMMISSIONER PATRONIS: Memory.

MR. CONNALLY: I'm sorry it had to do with a real outage, but I wasn't going to let that one slip by.

But, look, I think here's the other thing. I think it's important that we at times produce the content that gets distributed through those media outlets.

CHAIRMAN BROWN: Uh-huh.

COMMISSIONER BRISÉ: Yeah.

MR. CONNALLY: We have videos that we can

produce that says, "Here's what our people are doing," and we can provide those to the news outlet that don't necessarily have the ability to produce videos. So being very flexible, I think, is important and this -- using our media friends and partners. We've obviously gotten to know them pretty well in the last six months again. So I think our media relationships are -- seriously, they're as strong as they've ever been, and they are an important channel for customers and us during storms.

COMMISSIONER POLMANN: That's a key point. You are the best source of information, and that's very important.

MR. CONNALLY: Yes, they rely on us. Many times you'll see them getting weather reports not just from their own meteorologist, but during the interviews they're asking us what we're getting from our meteorologists to validate and verify.

EOC communications, we could all talk about this a lot. We staff every county emergency management center. Leo, you talked about it being county centric and the state supporting that. We see our role to be a critical partner in that county EOC, but also right here along with the other utilities, making sure there's consistent messaging, there's frequent messaging, and

that resources are at our fingertips all the time to get resources brought to us or for us to provide to others.

Outage map, I've hit that. I did just want to comment, because I think one of the lessons learned across the industry has been the use of these maps is growing and growing and growing. How we communicate via these maps probably has had some missteps across the industry over time as we've learned how to communicate better. Gulf Power will -- has no intention to ever turn off an outage map. There are times we have to use global restoration times when it's very widespread. But I've got to tell you, we're getting better every single year at predicting how long it's going to take for our restoration time on an individual outage basis.

Our own experience, when we first started using outage mapping, was -- plus or minus two hours was a reasonable metric. That no longer is the case. That's not our expectation. That's not our customers' expectation. We measure ourselves on a much tighter window now. Obviously the earlier, the better, than being late. And so we keep getting better here and we keep learning ways to communicate better with our outage mapping systems.

The alerts, hopefully Commissioner Patronis also loaded that here. We can, we can send you alerts

when the lights are not on at your home or business and give you restoration times the same way. That's a growing communications channel for us in the industry across. Social media, you heard about that already. We think it, Commissioner, it is a very important channel, and we continue to see more interaction on social media than I would have predicted.

For instance, during these storms, one of our sister companies, Georgia Power Company, was using social media. It overwhelmed them, the much interaction they wanted to have, so they borrowed our social media team to help support that, back to your question about how we work together. I think it's going to be an ever-growing piece of the communications network.

CHAIRMAN BROWN: And, you know, at the Commission, we are trying to absolutely grow with the social media platform and trying to take the information that we have and send it out to customers during a storm event. So we're growing too.

MR. CONNALLY: We all are.

CHAIRMAN BROWN: And we're very lean.

MR. CONNALLY: Yeah, I understand.

COMMISSIONER PATRONIS: Chairman, I've got a --

CHAIRMAN BROWN: Yes, Commissioner Patronis.

COMMISSIONER PATRONIS: So here probably the last three or four months I'm starting to get emails now from Gulf about energy saving devices I can buy.

CHAIRMAN BROWN: Uh-oh.

COMMISSIONER PATRONIS: And -- but, you know, hear me out now. And it's like a sales pitch. But what's happening is the pitch that they're making is these are devices you can buy to help save on utility costs at home. So I don't know whether you know it or not, but it's kind of disarming me, so now I'm not saying, "Well, it's not" -- I don't look at it as spam as much because it might be sending me something that makes me find savings.

MR. CONNALLY: It's a conservation tip.

COMMISSIONER PATRONIS: Yeah. So, I mean, I appreciate it.

CHAIRMAN BROWN: You're going to get more now with the app.

COMMISSIONER PATRONIS: I know.

CHAIRMAN BROWN: You'll get more.

MR. CONNALLY: Look, I almost hate to point to call centers as our traditional way of communicating. In some ways it is, but it is still a form of communication that many of our customers still rely on. Like you heard Eric say, we now --

COMMISSIONER BRISÉ: I don't mind. I used to own a call center, so --

MR. CONNALLY: There you go. There you go. We don't have to have a customer call us anymore to tell us that their power is out, but many customers still want to call and have the conversation about how long is it going to take.

While we do it, we try to steer them to a more efficient app or web platform that can serve them better, but we think we've still got to maintain this channel.

COMMISSIONER PATRONIS: Lately when I call, y'all have been very, almost like surgical. When I call for an outage, the first thing, I get hit with a message saying, "We realize there's an outage here, here, and here." So I say, "Well, then they know what's going on and I can just hang up."

MR. CONNALLY: That's our hope, that we show you we know what's going on.

COMMISSIONER PATRONIS: Yeah.

MR. CONNALLY: On online feature that we're experimenting with, and I think many other retail companies have, is chat.

CHAIRMAN BROWN: Oh, yeah.

MR. CONNALLY: That too has surprised me how

much customers want to interface with us on a chat platform. And we have not had a major storm to exercise that platform, but we anticipate it's one that we'll use even further.

CHAIRMAN BROWN: Frontier uses it.

MR. CONNALLY: This is something new. Eric talked about communicating through kiosks. We intend to pilot this for our territory, carrying this mobile trailer to shelters, to food and water distribution sites.

CHAIRMAN BROWN: Stan, this is very cool and this is part of your storm hardening plans now. Are you going to deploy more of these?

MR. CONNALLY: We're going to, we're going to experience it over the next few months. Then we'll grow the number of trailers that we have that we can deploy elsewhere.

CHAIRMAN BROWN: Great.

MR. CONNALLY: But the point is to have something else on the ground at those big gathering spots, whether -- again, like, whether it's shelters or distribution centers, that we can have conversation with. We can use those screens to pull up their home and find out the estimated restoration time. They can stand there and charge their phone with us while they

talk, if they want.

CHAIRMAN BROWN: This is a kiosk. This is your --

MR. CONNALLY: It's our form of a kiosk on wheels, right. And we can carry it to the right venues at the right time. So this is something we're trying. And we'll grow this fleet if it proves to be as useful as we think it is.

So, look, I'll end with this. This is Demetric Washington, one of our valued linemen at Gulf Power Company. This ad was used to thank our line workers and really to thank the City of Tallahassee and the other people that we worked alongside to keep our people safe during the restoration at Hermine. A powerful offense is much bigger than just the utilities, though. I talked about Bryan and Leo and our communities, this Commission, our peer utilities. I'm proud to hear that you're hearing that Florida is maybe a standard for others around the country to look at.

The point is we've got great men and women doing this, they've got great experience, but we've got to keep getting better. And forums like this, I think, give us ideas and ways to continue doing that. I hope and pray the eight counties that we live in in Northwest Florida don't have any storms, but we've got to be ready

when we do, and I think we are.

CHAIRMAN BROWN: Excellent. Thank you so much, Mr. Connally. I appreciate the presentation. On behalf of the Commissioners, thank you again.

Commissioners, any last questions?

Thank you. I'm going to have to move this along a little bit more swiftly because I know folks are probably getting a little antsy. So please don't take that, again, as me being rude. I just want to have -- go right to questions to -- next up, Mr. Gordon Gillette with Tampa Electric.

MR. GILLETTE: Thank you, Commissioner Brown.

CHAIRMAN BROWN: Do you have an app, because I'm downloading it now?

MR. GILLETTE: There you go. Thank you very much for your leadership, Commissioner Brown and the other Commissioners, in having this forum. I think it's a great time of the year obviously for us to be talking about this.

You know the members of the Tampa Electric team mostly that are here today, but I want to introduce one new one. Gerry Chasse, will you please stand up real quick? Gerry is our vice president of energy delivery. And he comes to us from Emera Maine where he was president of the company there, and joined us --

he's used to fighting a little bit different kind of storm up there, but joined us right in the middle of hurricane season and fought two storms with us and did an excellent job. So we're happy to have Gerry on the team with us.

CHAIRMAN BROWN: Great. Welcome.

MR. GILLETTE: Tampa Electric is ready for storm season. We have a season storm plan. You know Tampa Electric and Peoples Gas pretty well. We serve a million customers in and around the Tampa area for electric and all around the state for Peoples Gas. But we feel that we are part of something bigger in Florida. The cities that we serve are very important for us to communicate with, and all of the other utilities in the state are part of the statewide family.

And I will tell you, we work very hard to stay connected. In the cities of our service territory during the three named storms that we had, I talked to every single mayor at one point or another in preparation for the storms. And we strive to be a very strong partner with the utilities. Like the other utilities that you've heard from, we helped Duke in the Carolinas, we were at JEA, and interestingly enough, we were also on Grand Bahama Island, which is one of the Emera sister companies now. And so we did a lot of

mutual assistance this year, and we're very, very proud of that.

CHAIRMAN BROWN: And you have Barbados too now.

MR. GILLETTE: We do.

CHAIRMAN BROWN: So you're going to be active during hurricane season.

MR. GILLETTE: That's right. There's actually four islands, Dominica and St. Lucia as well, that are part of the Emera family of companies.

CHAIRMAN BROWN: What are those restoration times like?

MR. GILLETTE: Well, on Grand Bahama probably a quarter of the system was wiped out.

CHAIRMAN BROWN: Yeah.

MR. GILLETTE: And we had crews there from Tampa Electric, Emera Maine, Nova Scotia Power had crews there, Emera Utility Services had crews there. The estimated time to restore, if we wouldn't have come and helped --

CHAIRMAN BROWN: Oh, yeah.

MR. GILLETTE: -- was probably six to ten months. We were able to get customers back in 37 days.

CHAIRMAN BROWN: Oh, my gosh.

MR. GILLETTE: Now that isn't -- I mean,

that's really tough --

CHAIRMAN BROWN: Yeah.

MR. GILLETTE: -- by our standards in the United States. But I can tell you that the folks in Grand Bahama were very, very pleased with what we were able to do.

CHAIRMAN BROWN: Commissioner Patronis.

COMMISSIONER PATRONIS: So do you literally have to deploy trucks via --

MR. GILLETTE: Barge.

COMMISSIONER PATRONIS: -- barge?

MR. GILLETTE: Yeah. We sent 15 trucks over on a barge, 50 employees went over on a boat and showed up there, and some of them were there the whole 37 days.

CHAIRMAN BROWN: Yeah. So Tampa Electric is -- I mean, obviously all of the utilities are in flood areas, and Tampa Electric specifically -- where I personally live, it floods tremendously during a storm, before a storm, I mean, all the time. What kind of events did you face in the Tampa area during Matthew?

MR. GILLETTE: We were actually very fortunate. With the three named storms, we didn't have a great deal of flood that we dealt with. Interestingly enough, at Peoples Gas we dealt with flooding in our --

CHAIRMAN BROWN: Uh-huh. In St. Augustine?

MR. GILLETTE: -- in our Jacksonville division, St. Augustine. Eric was showing the substation, the electric substation. We serve gas in St. Augustine, and we had five to seven feet of flood waters in St. Augustine. And the challenge with gas is that when our equipment and when customers' meters and their equipment in the home is inundated with water, you can have backflow of sea water and water into lines and pilot lights go out.

And restoring gas is a more interesting process. Gas tends to be somewhat more reliable than electricity because it's all underground except for when it floods. And what you've got to do is go to the home, turn off the gas service --

CHAIRMAN BROWN: Manually.

MR. GILLETTE: -- manually until you restore pressure and get the water out of the pipes, and then go back. And so there's two visits to the home, and the homeowner has to be home to relight the pilot light. And so quite an experience for us.

And we actually did our own form of mutual assistance. Fortunately Peoples Gas is all over the state, and so we brought over 40 team members into St. Augustine to help with the restoration on the gas side there.

We're preparing year-round obviously strengthening our system, preparing our people, and then when the storm comes, restoration and response to the storm.

Our -- some of our successes, obviously we're, as I said, we're very proud to have helped the other utilities in the state. One of the things that's been talked about a little bit here is the updating -- is the work on mutual assistance agreements in the state. We are -- we have mutual assistance agreements with all the other utilities in the state. Some of them are a little old, so we're updating ours. And as a matter of fact, there's an organization in the state, the Florida Coordinating Group, that you probably know mostly for doing a lot of governmental relation stuff on environmental issues and Department of Transportation.

CHAIRMAN BROWN: FCG; right?

MR. GILLETTE: The FCG, which, by the way, was the precursor to the FRCC, which is the reliability organization. But they split and -- but FCG still exists. And actually there was a form of mutual assistance agreement that was created at the FCG back in the 1980s that most of the utilities signed between each other, and we've had a team at the Florida Coordinating Group working together to try and update some of those

agreements, provide some guidance, share best practices. It's a work in progress, but I think the communication at the FCG is good amongst the utilities I'm at.

CHAIRMAN BROWN: You're chairman -- right? -- of the FCG?

MR. GILLETTE: Yeah, I'm chairman until May, and I'm handing it over to Lisa Johnson from Seminole.

CHAIRMAN BROWN: Good.

MR. GILLETTE: And so, let's see, what else? A little bit on Peoples Gas. This is some of the mapping. We've got state-of-the-art mapping at Peoples Gas. We do a lot of work in place. This happens to be Miami-Dade, and it shows our regulator stations, and in blue there with the R's and our gate station, which is the green star. So we know all throughout our service territory the areas that are expected to be impacted by floods. And I mentioned St. Augustine and the 40 employees.

CHAIRMAN BROWN: Uh-huh.

MR. GILLETTE: Just a little bit more on Emera. You know, obviously we worked together very, very well together on Grand Bahama, and we look to do that in the future together.

In terms of our lessons learned in mutual assistance, probably the most important one, as we did

the work on our system this year and as we worked on other utility systems, what we were reminded of is that you can have all of the resources in the world, crews and trucks from all over the place there, but if you aren't assessing the damage and getting the work orders out and planning the work of those crews, it won't be a successful restoration. And really that is the responsibility of the home utility. And so across the state, that's -- I really think that's what we've all got to work on is being sure that at the home utility we have folks trained in damage assessment, we're, you know, we're doing our tree trimming, and we're -- and we have our logistics right to produce the work orders.

We, too, have strengthened our system, and you can see our numbers in terms of what we've spent since 2004 and our plans for spending going forward. We, too, do a lot of drilling. And our mock storm is next week actually, April 24th. And we are not only going to be doing it with Tampa Electric, but obviously the local EOCs and the communities that we, that we serve.

CHAIRMAN BROWN: I think, I think Gulf Power had a really good suggestion of inviting the media to kind of -- because it does get that message out there to the residents and invite them to the training so that they see what you all do.

MR. GILLETTE: Right, right.

CHAIRMAN BROWN: I've been a part of it, and it's very educational.

MR. GILLETTE: Right. It's another form of communication --

CHAIRMAN BROWN: Yeah.

MR. GILLETTE: -- to be sure. And on this slide, we cover those very important damage assessment resource management things. Stan talked about it. Communications is the last key to the restoration phase.

We, too, have a lot of new technology on our system that we're very proud of. This is our mobile command center. And we also have introduced a new thing called a Fort, which is a rigid temporary structure that can be erected. We have seven of these on our system. And we can set up -- set these up at incident bases and have, you know, basically offices and radio communications and those kinds of things as well.

We, too, are modernizing our system and our grid. Probably the most important development for us was bringing our new SAP customer relationship management system online in January. And the team did a great job, a lot of work over New Years, bringing it online and then a lot of work after to make sure that it was a smooth implementation. And I'm very proud to

report that the team did a very good job. At some points we had as many as 800 people working on the implementation of that system. And it's an important part of the modernization of our system with our pilot program and our AMI meters and all that we're doing, like the other utilities, to automate our system moving forward.

CHAIRMAN BROWN: What is your -- to get all of the system on AMI, what's your time frame?

MR. GILLETTE: We're looking at 1919 -- I mean, 2019 to 2020 as our time period. Like I say, we already have a pilot program. Meters have been deployed. The next big step for us, and we're going to be -- this will be another big IT project, is working on building the interface, which we call meter data management, between our new CRM system and to be able to talk to those meters on the field.

One of the things that is also kind of positive for us is we have had a radio communication mesh network on our system for some time. We installed voltage control on our system and it required that mesh network. And so all of the radio communication background -- backbone is in place as we install the AMI meters going forward.

COMMISSIONER BRISÉ: Quick question. The CRM

here --

MR. GILLETTE: Yes, sir.

COMMISSIONER BRISÉ: -- what does CRM stand for? Is that customer relation management?

MR. GILLETTE: Yes, sir.

COMMISSIONER BRISÉ: Okay.

MR. GILLETTE: Yes, sir. And there are different flavors of that. What we installed was a product by SAP.

COMMISSIONER BRISÉ: SAP?

MR. GILLETTE: Communication with customers, you've heard -- Stan did a great job on that -- key. We are very involved in social media as well. And as part of our storm communications, we provide customers with helpful information on restoration, but also obviously safety is key as well.

Commissioners, we really thank you for, again, your interest in this topic, and Tampa Electric is proud to be a part of this today. Thank you.

COMMISSIONER BRISÉ: Thank you for being here.

CHAIRMAN BROWN: Gordon, thank you so much for being here today with us and for supporting these efforts and taking the lead on a lot of issues.

Commissioners, any questions?

Thank you for a great job.

MR. GILLETTE: Thank you. Thank you.

CHAIRMAN BROWN: All right. Next up -- and, again, please be -- thank you for being patient with us. We're going to kind of expedite this a little bit, but this is very important and interesting material to all of us. Yes.

Mr. Harry Sideris, welcome to the Florida Public Service Commission.

MR. SIDERIS: Good to be here. Thank you. Thank you, Commissioners.

CHAIRMAN BROWN: You hail from North -- we'll make it easy on you. Okay?

MR. SIDERIS: Yeah. Thank you.

CHAIRMAN BROWN: So you hail from North Carolina.

MR. SIDERIS: Right.

CHAIRMAN BROWN: So you got to face -- you're with the company for how many years?

MR. SIDERIS: Yeah, 21 years now.

CHAIRMAN BROWN: Twenty-one years. Engineer by background?

MR. SIDERIS: Yeah, engineer by background. Matthew came to visit me in North Carolina even though I wasn't in Florida. He was a little bit more mean up there, I guess, with the flooding and the customers up

there.

CHAIRMAN BROWN: Right, right. Well, welcome.

MR. SIDERIS: So I've got a lot of experience with hurricanes.

CHAIRMAN BROWN: And there's a lot of folks in here that have been with Duke for a while, I'm sure. And so welcome and just hit it off.

MR. SIDERIS: Great. Well, thank you.

And I, too, I can say ditto, and I'm going to sound like a broken record, but I wanted to thank the emergency management folks, the Commissioners, and my fellow utilities. This is a team effort. Hurricanes are a team effort, team sport, so we all, we all do that.

So I'm going to touch on the three key messages around communication. I'm going to start off with communications. And like the other utilities, we focus on communications in multiple ways. We embed our communication folks in the field with the operations folks in the most hazardous areas or the most damaged areas so they can be there on the ground, they can see it with their own eyes when they communicate.

The key messages we try to get out are, you know, before the storm comes, we want people to start preparing; have safety plans for their families; get

out, if they need to; also start preparing them for outages, what's going to happen when the storm goes through, what they can expect on their electricity.

During the storm, we want to put them at ease. This is a stressful time for them. We want them to feel comfortable that we've got it under control, that we're doing our best to help them. We want to keep that communication link going fast. We want to show the damage so they understand what we're facing, and we also want to show the recovery and the work that we're doing to restore their power.

The world has changed a lot, as we talked about earlier. We have to use multiple, multiple channels, including: The traditional media, which we had during Hurricane Matthew 155 news releases in ten days; to social media, which I'll talk about more in detail; the robocalls, 550,000 robocalls, 1,800 of those to medical folks that needed to ensure their power and their backup power were in good shape to handle their medical facilities.

CHAIRMAN BROWN: You know, I stopped by Duke's EOC during Hurricane Matthew to see what was happening there, and it was just such a, again, kind of like the state EOC, just a seamless event and very impressive.

MR. SIDERIS: Yeah. We like to call it

coordinated chaos, like a ballet. Everybody knows what they're doing and they're doing it.

We mentioned the EOCs earlier. So we also staff with Duke employees all 28 county EOCs that we're involved in as well as the state EOCs.

So I'll touch on a couple of these communication mechanisms a little bit more in detail. So email is a big, big communication target for us. So during Hurricane Matthew, over a million customers received emails. These came in several stages: Warning them of what to do, that we're watching the storm, it could potentially impact you; to it's definitely going to impact you, here's what you need to start thinking about; to it has impacted you, this is what we're doing to help you; and then at the end we wanted to thank them for being our partner throughout the chaos there.

CHAIRMAN BROWN: Uh-huh.

MR. SIDERIS: What we implemented is a dedicated website for each of the named major storms. So during Hurricane Matthew, the website received over 140,000 views. This was kind of the central location to get to our outage maps and other things. We had over half a million people look at our outage restoration maps. And as you can anticipate, most of those came from the smartphones because their desktop computers, if

anybody has any anymore, weren't working. So about 80 percent of it's coming through the mobile devices now.

COMMISSIONER BRISÉ: Let me ask a question about that. Thank you, Madam Chair.

CHAIRMAN BROWN: You're welcome.

COMMISSIONER BRISÉ: So do you all go back and look at the data analytics surrounding the emails that were opened to see if they correspond with the area where the storm actually hit and all that?

MR. SIDERIS: Yeah. We look at all those -- we look at so much data. We look at the email data, who hit the website, where they were at, what they were tweeting, what they responded to on Facebook.

COMMISSIONER BRISÉ: Okay.

MR. SIDERIS: So we used that to get better and target it better in the future for storms.

COMMISSIONER BRISÉ: All right. Cool. Thank you.

MR. SIDERIS: The next slide here shows what we did on our home page. Again, just kind of giving them an update and the timeline of the storm of where they are versus, you know, the beginning phases versus the end just to keep them informed.

We use a lot of advertisements and public service announcements. This was mainly in media and

radios in, in the areas that were hit. These were your typical messages that you hear over the radio letting you know that, you know, we're out there working, make sure you stay safe, make sure that you're doing the right things to protect your family.

CHAIRMAN BROWN: Uh-huh. Even on Pandora.

MR. SIDERIS: Even on Pandora.

Then finally the social media. This is obviously something you -- the last batch of storms, which I happened to live through in 2004 and 2005 when I lived here before. Actually Hurricane Wilma almost ruined my marriage.

CHAIRMAN BROWN: Oh, that's --

MR. SIDERIS: Or my wedding, not my marriage.

(Laughter.)

Yeah, almost prevented my marriage, yeah. But, you know, it was heading for Clearwater. It decided to take a vacation in the Yucatan Peninsula, so that was good.

CHAIRMAN BROWN: That's good.

MR. SIDERIS: Everybody got to come. We got married, and then it took a right turn into the Miami area.

But social media wasn't around back then, and this was the first batch of storms. So social media is

something new for our company obviously, as well as everybody else. So this was the biggest social media event that we had.

Just to put it in perspective, we got more interactions on social media during Hurricane Matthew than we did the entire year of 2015. So a lot of people wanted to see what we were doing, a lot of people used that media, so we focused our social media on really giving them up-to-the-date information showing where our crews were working, what they were doing, a lot of videos, storm direct videos. We got a lot of positive feedback on the videos. People like to hear from the storm directors.

CHAIRMAN BROWN: Yeah.

MR. SIDERIS: They like to see the linemen working out there in the field and what they were up against.

Storm hardening, again, this is going to sound like a broken record, but I'll quickly go through these. Like everyone else, since 2004 we spent $2.4 billion hardening our system. This is replacing poles, trimming vegetation, and other items. In 2016 alone, we inspected over 100,000 poles, replaced over 4,000. And since 2006, we've replaced 42,000 of our distribution poles of the 800,000 that we have. So we continue to

make our system stronger in the classical sense here as well as through technology.

So Eric talked a lot about the smart self-healing grid. We've installed this as well. We saw during Hurricane Matthew and Hermine 26,000 outages were avoided by the self-healing grid. This saved about 3.1 million minutes of outages. Only 23 percent of our customers are benefiting from the smart technology right now, and that's growing every day as we invest in that.

CHAIRMAN BROWN: When you say "benefiting," does that mean that are using it or --

MR. SIDERIS: They're covered. The area that they lived in -- live in is covered under the smart technology on their distribution system, their piece of the distribution system.

CHAIRMAN BROWN: Okay. We're not -- we're talking about the AMI meters?

MR. SIDERIS: No.

CHAIRMAN BROWN: No.

MR. SIDERIS: This is, this is the self-healing network.

CHAIRMAN BROWN: Oh, okay. Sorry. Thank you.

MR. SIDERIS: AMI meters, we will start installing our AMI meters next year.

CHAIRMAN BROWN: Okay.

MR. SIDERIS: So we plan to start next year, and will be complete in the 2020 to 2021 timeframe.

CHAIRMAN BROWN: Yeah. It sounds like those are an important component of the overall smart grid.

MR. SIDERIS: Oh, absolutely, absolutely. It gives you the data, the instant data. We still depend on phones a lot, so that -- we're looking forward to having that advantage.

2016, overall for the entire Florida system, 164,000 outages were avoided and over 190,000 outage hours were avoided.

Okay. Just like everyone else, we have robust plans, and we spend a lot of time reviewing those plans, drilling those plans. Our drills are in a couple of weeks, and we're ready for that. And we use all our employees, everybody is involved in the storm duty, they're involved in the drills.

We also do a lot of lessons learned. So not just from our own storms, our sister utilities in the Carolina storms, but other utilities' storms. So we learned a lot from Hurricane Sandy, we learned a lot from Hurricane Katrina, and we implement all those items into our storm plans.

Our troops on the ground, we have 500 line workers in Florida, Duke Energy line workers that are

here in Florida, and hundreds more of contractors and tree trimmers. We have the advantage of having about 5,000 total linemen at our disposal in the Carolinas and the midwest. We utilized these folks during Matthew from the midwest. The Carolina folks were busy with their own Matthew issues. And like everyone else, we have agreements that we share with the southeastern utilities to help each other where we can.

COMMISSIONER GRAHAM: Why is your hurricane spinning the wrong way?

CHAIRMAN BROWN: He asked, "Why is your hurricane spinning the wrong way?"

(Laughter.)

MR. SIDERIS: Let me go back there and see it.

CHAIRMAN BROWN: He's just messing with you. Don't worry about it. Don't -- you can move along.

(Laughter.)

MR. SIDERIS: We're in the southern hemisphere.

All right. So how did we do? Moving right along. Moving right along.

CHAIRMAN BROWN: Yes, moving right along.

MR. SIDERIS: So how did we do? So during Hurricane Matthew, we had 300 -- over 300,000 customers that we restored all within 72 hours. We had 165,000 at

the peak of that storm. About 3,000 resources; most of those were our internal resources, like I said, from the midwest.

CHAIRMAN BROWN: Do you know what that percentage is of your overall customer base, the 316,000?

MR. SIDERIS: We have 1.8 million customers total. Now this number is a little deceiving because some people got power, then lost power, and they're moving around.

CHAIRMAN BROWN: Right.

MR. SIDERIS: So the 165 is probably a better number of the --

CHAIRMAN BROWN: You were affected.

MR. SIDERIS: Yeah. And then we met all our restoration times, or 99 percent of our restoration times during the process. So giving people a time and being accurate to that time is very critical.

We supported, like I said earlier, the 28 county EOCs and the state EOCs with our employees. I think that's a very critical thing that we do to make sure the information is flowing, making sure issues are being addressed, we're getting help where we need it, others are getting help where they need it. So preparation is definitely key. I was a Boy Scout, so,

you know "Be Prepared" is the motto -- right? -- "Always Be Prepared."

CHAIRMAN BROWN: Did you make it to eagle?

MR. SIDERIS: No, I missed out barely.

CHAIRMAN BROWN: Oh.

MR. SIDERIS: But, you know, storms are unpredictable, and Matthew taught us that. And we were gearing up in Florida to take care of Matthew, and it ended up being a bigger impact in North Carolina. So in North Carolina we thought we were going to have about a thousand resources to deal with the storm. We ended up with 13,000. So a much bigger impact than we expected. So you've got to be agile. Your drills and your programs and processes help you be agile.

CHAIRMAN BROWN: Well, thank you so much, Mr. Sideris.

Commissioners, any questions? Any questions?

Thank you. Welcome to Florida. Welcome back to Florida, I guess.

MR. SIDERIS: Happy to be here. Welcome back to Florida, yes. It's good to be here.

CHAIRMAN BROWN: And thank you.

MR. SIDERIS: And hopefully we don't have anymore hurricanes.

CHAIRMAN BROWN: Yes. Thank you.

Okay. So next up we've got Mr. Jeffry Householder, who's president of the Florida Public Utilities Company. Welcome, Mr. Householder.

MR. HOUSEHOLDER: How are you?

CHAIRMAN BROWN: Good. How are you doing?

MR. HOUSEHOLDER: I'm good. I want to apologize right upfront for not having a mobile app, but I assure you next year --

(Laughing.)

I'm talking with my communications people back here, and they're probably working on it right now.

CHAIRMAN BROWN: That's right. Those are cool.

MR. HOUSEHOLDER: Yeah, they are good. They are good. I'm going to be hopefully fairly brief here. I mean, you guys have heard about all there is to hear about hurricane preparedness.

We serve primarily natural gas and propane customers in Florida, but we do have a couple of relatively small electric distribution areas, one of them to the west of here in a three-county area and the other one on Amelia Island.

CHAIRMAN BROWN: Uh-huh.

MR. HOUSEHOLDER: And so we certainly take our responsibilities to be prepared for storms in all those

areas quite seriously. And, in fact, we work a number of storms every year, not hurricanes, but it's amazing the squall lines that come through both of those of service areas. So we're out restoring service quite often. We get a lot of, a lot of preparation and restoration work.

Again, you've heard about -- you've heard many companies describe their preparation, their activation activities, their restoration, and the business continuity plans they have. Ours are very similar. And, in fact, we have begged, borrowed, or stolen from the guys over here just about as much as we can from the larger utilities with more resources. And so we do things in much the same way.

Our pre-storm planning starts, as others have said, with a culture of preparedness, with a culture of safety. We take that very seriously in the company. We have a number of ongoing reliability improvements. We have also invested many millions of dollars in new poles and a variety of other storm hardening activities around our system. We take the drills and the emergency preparedness planning very seriously. Our annual plan also is coming up in about two weeks, and so we'll have folks from all over the state engaged in that as well. And we are actually inviting the media. I heard that a

couple of places. Stan was mentioning that. And so we will engage those folks in our planning.

COMMISSIONER GRAHAM: Jeff, a quick question for you. I don't mean to pick on you because of the size of your utility.

MR. HOUSEHOLDER: Sure.

COMMISSIONER GRAHAM: Do you also drill with -- because you're surrounded both by JEA and Florida Power & Light, do you also drill with them just because of -- if anything is going to impact your area, it's definitely going to impact the two of them.

MR. HOUSEHOLDER: JEA has been our wholesale provider, wholesale power provider for a number of years, and we do have a series of discussions with those guys and we have had some drills over the past several years with them.

COMMISSIONER GRAHAM: Okay.

MR. HOUSEHOLDER: I might mention that JEA took a little bit of a beating in this last storm process. We never lost transmission service from JEA during the storm. It was pretty astounding, I thought, that they kept that service up and running. So I always pat Paul on the head every time I see him because he did a nice job for us.

We, again, look at storm preparation and the

activation of our storm plans across the state. So we have small electric distribution areas, but the natural gas and propane storm plans are, you know, fairly important to us as well. And we utilize employees from natural gas and propane areas to help us on the electric side and vice versa. Not on the technical restoration obviously but in the logistics. You know, if people can drive a truck, they can haul supplies around and make sure that the electric guys are getting what they need.

We go through the same process of storm watches and storm warnings, and the activation, you know, flows out in phases as these storms get closer. We have a lot of contact with the EOCs, with the local officials, significant contact with our contractors and a number of other energy partners.

I think Eric and Stan and others mentioned the employee family storm plans are really key for us. Obviously if your folks are worried about what their families are dealing with while they're out trying to restore service, that's a tricky thing to keep them focused. And so we spend a lot of time and effort making sure that our families are okay.

Let me see where I am here. Equipment, fuel, key inventory dispersal. Obviously we're on an island, on Amelia Island, so we've got a lot of -- even though

we've storm hardened our response center there and our operations center, we move most of those things off island and bring them back in after the storm has passed. Lots of logistics just making sure we have people fed and housed appropriately, especially when you're bringing in outside folks from other companies.

We have internal crews that we wind up both in other areas of Florida, as I mentioned, but also in our Delaware and Ohio operations. And so we would bring them down as we need to do that.

I appreciate a lot the help that Stan gave us in this last storm. He sent several guys over that were very helpful in kind of wrapping up our restoration.

CHAIRMAN BROWN: What was the restoration time on Amelia Island?

MR. HOUSEHOLDER: Well, you're one slide ahead of me, so hang on. It was, it was 50 hours. I mean, we had people back on literally in two days.

CHAIRMAN BROWN: Oh, that's --

MR. HOUSEHOLDER: Yeah, we did a nice job, I think.

CHAIRMAN BROWN: Yeah.

MR. HOUSEHOLDER: And, again, it was -- you know, our guys live for this sort of thing. They really -- they were really focused on getting people

back in service.

You know, at one point we were looking at Category 4 hurricane warnings in just about every system that we serve all the way up the coast, from Palm Beach up to Amelia Island. So we were anticipating that this could be a pretty nasty event for us, and fortunately it did not turn into that.

But on Amelia Island we had a real storm event. There was a mandatory evacuation on Thursday. We were getting our people off the island as everyone else was leaving. The storm actually hit on Friday afternoon.

And I'm fairly proud of this slide. We were the first in line to return to the island once the DOT had actually cleared the bridge for transport. I have to tell you, the sheriff is very mad at me because he's generally the first in line. He was a little late getting there, so we got our guys lined up and back onto the island first thing Saturday morning.

When we got onto the island, we did our usual damage assessment, both with our SCADA resources and with people actually going and physically assessing the damage. We had 90 percent of our customers were out of power, about 14,000 out of the, give or take, 16,000 customers. Twelve out of the 13 circuits on the island

were out of service. Most of that was tree damage. We had some flooding there. But generally speaking, we saw either small tornado events or trees that were impacting the system.

The transmission system feeding the south end of the island where the Ritz-Carlton, the Omni, and many, many customers live were down. And we had, interesting enough, I think as Eric or someone mentioned a minute ago, we had no damage to any of the storm-hardened poles either on the distribution side or the transmission side. So, I mean, it really is a testament to what we saw on that island.

CHAIRMAN BROWN: That's great.

MR. HOUSEHOLDER: The other thing we're very proud of, we've built a small combined heat and power plant on the island, and we spent a lot of time designing that so it would we storm hardened. We actually elevated the turbine platform, we elevated the substation, we've evaluated just about everything that was important on that system, the control room. We never thought that two months after we flipped the switch and turned the unit on that we'd actually see a Category 4 storm come our way.

This thing sits literally 40 feet from the marsh on the bay side of the island. And so it was, it

was interesting for a while to see what was going to happen. Fortunately we had no damage on that system. We were able to bring it back online within three hours of being back on the island.

CHAIRMAN BROWN: Wow.

MR. HOUSEHOLDER: So we had -- even though JEA remained, remained up, we could have served a good bit of the load on the island with the CHP.

Let's see. I think you've heard enough about the systematic repair approaches. I mean, we, again, we do a lot of the same things that the other systems have talked about. Constant communications with our marketing, customer care folks. I mean, they in turn are relaying information out to the customers and the media and the emergency services personnel.

We staffed the EOC in Nassau County for, you know, 24/7 throughout Hurricane Matthew. That was actually a couple of days before and a couple of days after. We constantly monitored social media. Our guys did just a wonderful job. And we saw things here that we've never seen before. 30,000 social media interactions, and we only have, you know, 16,000 customers over there.

CHAIRMAN BROWN: Wow. Yeah.

MR. HOUSEHOLDER: All of our customer

communications were linked to one web landing page, so we had a nice consistent, timely customer update capability. We had 11,000 visitors to that landing page in a couple of days.

CHAIRMAN BROWN: Yeah.

MR. HOUSEHOLDER: So, again, people are clearly looking for information other than the traditional call center means.

CHAIRMAN BROWN: Well, I really like your next slide, which is the lessons learned. Specifically, you can never have enough port-a-potties.

MR. HOUSEHOLDER: Yes. Well, I was going to say that's exactly right. It's always a little --

CHAIRMAN BROWN: That's a good lesson for companies to know.

MR. HOUSEHOLDER: It's the little things that kill you, and so that's exactly right.

CHAIRMAN BROWN: That's crazy.

MR. SIDERIS: Any questions? I mean, I can't top that.

CHAIRMAN BROWN: Love it. I love it.

COMMISSIONER POLMANN: Yeah. Where did you get all those?

MR. SIDERIS: Always end on the port-a-potty slides.

CHAIRMAN BROWN: Always end on port-a-potties.

(Laughter.)

MR. HOUSEHOLDER: We had a local contractor that brought them in, yeah.

CHAIRMAN BROWN: Mr. Householder, thank you. You've been with the company for so many years and you've seen --

MR. HOUSEHOLDER: A lot of storms.

CHAIRMAN BROWN: -- a lot of storms.

MR. HOUSEHOLDER: Right.

CHAIRMAN BROWN: And a lot of -- thank you for your efforts leading your company and coming down to the Commission.

MR. HOUSEHOLDER: Sure. We appreciate the time here today.

CHAIRMAN BROWN: Thank you. Thank you so much.

All right. We've got two more up, and we're going to start with FMEA, who with us today is Ms. Amy Zubaly. I pronounced it wrong again. I can't get it right.

MS. ZUBALY: It's Zubaly. That's okay. Thank you.

CHAIRMAN BROWN: Welcome.

MS. ZUBALY: Thank you. Thank you, Madam

Chair and Commissioners, for having me be here. And I'm going to do a lot of dittos and echoing of the previous presenters as well. And thank you to the EOC and the state for all of the assistance that you all gave us. And the governor was very instrumental in helping us with some of the things that we went through during both of our storms.

I would like to offer myself a little disclaimer mostly for your questions on Tallahassee. I was not in this position during the hurricanes. I've only been in this position since the beginning of the year. My background with the association has been in government relations. And so I'm not -- I don't have the exact answers on some of the issues with Tallahassee, but I would love to bring that in to meet with you all, and that may be the better approach on some of that stuff to take. So, again, thank you for letting me be here. I appreciate that, and I appreciate --

CHAIRMAN BROWN: That sounds good. Okay. We'll take you up on that.

MS. ZUBALY: Yeah, I would like to do that. I think that would be beneficial for you all, so --

CHAIRMAN BROWN: Thank you.

MS. ZUBALY: Just a little bit of background

on who we are. There are 34 municipal electric utilities in Florida. We serve about 1.3 million customer meters or about 14 percent of the population. We've got large systems like Jacksonville and Orlando and Tallahassee and some very small utilities. Moore Haven is just a little over a thousand customers. We've got about five utilities overall that are less than 1,500 customers. So we range in size from big and small, but combined we are the third largest utility in Florida behind Florida Power & Light and Duke. And that's just a graphical representation of the market share. And that's just a map of where our systems are located. We're as far west in the Panhandle as Blountstown and all the way down to Key West and dispersed throughout the state beyond that.

Just a little bit on our power supply. We're frequently asked how some of our smaller utilities generate power, and the answer is they don't. We are wholesale buyers of power. Probably about a third of our members actually generate and the rest buy from our municipals or from the investor-owned utilities or through the Florida Municipal Power Agency, which is a wholesale agency owned by municipal electric utilities.

CHAIRMAN BROWN: Uh-huh.

MS. ZUBALY: In terms of mutual aid, we've got

many options and a lot of resources at our disposal. You heard from some of the previous presenters that we are working on updating a statewide mutual aid agreement, and FMEA is very active in that process. And that's an ongoing, very fluid process, and we're grateful to be participating in that.

CHAIRMAN BROWN: You think you're going to have that wrapped up by hurricane season?

MS. ZUBALY: I hope. I hope.

CHAIRMAN BROWN: Does it need to be voted on by your board?

MS. ZUBALY: It's in all the attorneys' -- no, on my board, no. It's right now -- all the utilities, I think it's all in the attorneys' hands on working on the language. And once it's done, it's just a matter of getting all of our utilities to sign onto it. But we wouldn't have to adopt -- it would just -- each individual one would sign onto it.

We're also part of a national mutual aid network that is coordinated through our national association, the American Public Power Association. Public power and electric cooperatives across the country are part of that, and there's also different regions broken out within that as well. And so we're part of the southeast region of that.

And so by the numbers, this is just access to resources within Florida. These are our 56 utilities that we have, and we rely on resources across sectors. We've -- Florida Power & Light and TECO and Gulf -- I think we've relied on assistance from pretty much everybody in 2016. Nationally there's more than 2,000 municipal electric utilities and more than 800 co-ops that are all part of that agreement as well that we have to rely on.

So I know you can't read that and that's okay. I can't either. But these are just copies -- on the left-hand side is a copy of that national mutual aid agreement that I mentioned. On the right-hand side is just a copy of FMEA's mutual aid procedures that we make sure all of our utilities have. It contains our contact information of the primary coordinators in the state as well as what to do before and after the storm if you think you might need assistance or if you have extra crews that you can lend out for assistance to others.

CHAIRMAN BROWN: So I just have a question.

MS. ZUBALY: Yes.

CHAIRMAN BROWN: From last hurricane season to this, and, of course, you were in different role, does FMEA, do they -- do you have a different approach that you all or any lessons learned that you're going to

implement from the past hurricane season?

MS. ZUBALY: Sure. And I can get -- I'll get through some of them. And I think some of the biggest lessons learned is focused on communications. And customer expectations on communications are not how they used to be, and that overcommunicating, as long as the information is factual and realistic, is not a problem, and that, you know, customers are wanting: How many customers are out? When is my power going to be restored? Where are your crews working? What street level? Down to that type of information. And our members are definitely working to get that information out to customers.

A majority of all of our members, if not all, do have social media accounts, and they're using them actively, and that's growing on a day-by-day basis. And I think, as some of the other presenters said, you know, every storm that comes through and every storm that we offer assistance to we have lessons learned and best practices to grow upon.

CHAIRMAN BROWN: Do they all have hurricane drills in place annually like our IOUs do?

MS. ZUBALY: I don't think every one of them do, but I'm not sure of that exact answer. I know many of them do. I know JEA does. Kissimmee Utility

Authority just had theirs last week. I know Orlando does. A lot of them may not have them just as a specific utility but as part of a city as a whole in terms of a disaster response. But I don't have the individual numbers on which utilities do and which don't.

CHAIRMAN BROWN: Commissioner Graham.

COMMISSIONER GRAHAM: It's interesting that you asked that question. I was going to ask the same question that I asked Jeff earlier about a lot of your utilities tend to be on the smaller side. And I guess the question is are you encouraging them to drill with the larger IOUs that surrounding them, that are next to them? So when you understand what they do during a hurricane, you know, then those guys know, you know, how to fit in and, you know, you don't have a bunch of people running in different directions.

MS. ZUBALY: Yeah. And, again, I don't know where each individual specific utility is in regards to running through those disasters. FMEA does have a hurricane workshop along with a lot of other forums that we have been updating members on processes and procedures since the last storm. And our workshop is actually in a couple of weeks, and one of things that we're encouraging them all to do, if they haven't, is to

coordinate these mock disasters. FMEA as an association participates in a tabletop exercise through our national association, but that's just on a mutual aid coordination level. But --

COMMISSIONER GRAHAM: So part of this workshop you're talking about is actually going to be telling them, saying, "Hey, you need to, you need to be part of Florida Power & Light's drills."

MS. ZUBALY: For some of the smaller guys that may not have been part of that. Yeah. Some of the bigger, medium-sized and bigger guys have gone through those disasters and are doing that now, have done that, are doing that in the coming weeks as well.

COMMISSIONER GRAHAM: Thanks.

CHAIRMAN BROWN: Thank you.

Commissioners, any other questions before she continues?

All right. Thank you.

MS. ZUBALY: And that's just some of the areas where we have received assistance.

I mentioned our national, national association mutual aid. In event of a disaster, they implement what's called the Mutual Aid Playbook. And this is just a page from that playbook. It kind of -- the different colors indicate what level of mutual aid might be

needed. The green is kind of a status quo or isolated outage event. The yellow is resources are being able to be met been within your state. Level 3 is where I mentioned that we're part of a southeast regional mutual aid that we will reach beyond our state into the southeast region. And then Level 4 is a national mutual aid activation in which coordination is done with utilities across the country.

And I touched on some of this already, that we conduct preseason briefings, as do our individual utilities. They have their own exercise and briefings in public forums in which they discuss preparation activities with their customers and their community. And one of the unique features for the municipals is that not just with their own utilities, but they have the access to -- resources to access all of their city employees as well. So even though the utility department of some of these small guys may be five, six people, they rely on their full city. And city employees will have dual jobs within a hurricane that they'll -- they may be a finance person during the city, but during a storm they're something else.

Pole replacement. Dittoing what everybody else has said on that. We've completed our first run of the eight-year inspection cycle. Many of them are

through -- in the second.

Vegetation management. Most of our utilities participate on a two- to three-year trim cycle. I do have some information on Tallahassee on some of that. I was trying to find out on theirs. Since they're such a tree-heavy community, and I had asked them specifically what their tree trimming cycle was. And they just changed it -- as you know, those of you that live in Tallahassee, we love our trees. Everybody loves your trees. And when you go to want to trim them, people get very upset and very fired up over it.

But the commission did finally agree to move forward with a stronger tree trimming process. And right now they're on an 18-month tree trimming cycle. And it had been four to six feet, and that's just been approved to be extended to eight to twelve feet.

COMMISSIONER BRISÉ: Question.

CHAIRMAN BROWN: Commissioner Brisé has a question for you.

MS. ZUBALY: Yes.

COMMISSIONER BRISÉ: Yeah. So that brings me to an area that I think Commissioner Patronis addressed maybe a little bit earlier in terms of maybe there's some inconsistency across the state as to how these tree trimming programs and these programs of preparedness are

laid out across the state. Like, I mean, the five IOUs that come here and we go through what they're asking for, and so there's a certain level of consistency that exists there. Is there a certain level of consistency that exists between the utilities that are owned by municipalities across the state to ensure that you don't have pockets -- my neighbor who's, like, three or five blocks down, because we live in two different cities and I'm covered by an IOU and then they're covered by a municipal-owned utility, and so, therefore, the programs are completely different and my restoration time is completely different than the person who lives three blocks away because we're served by these different utilities and there is no consistency there? So is there some level of consistency among the utilities?

MS. ZUBALY: Yes. And I hear what you're saying. Typically -- and, again, I don't have all 34 cities' data in front of me to know from, but on average, my cities, two to three to four years is their, is their tree trimming cycle. Our utilities are governed by either -- their city commissioners sit as their governing boards, or in the event, if it's a utility authority like JEA or OUC, they have a governing board.

COMMISSIONER BRISÉ: Sure.

MS. ZUBALY: And so those policies are directed by those governing boards. Either the city commission or the utility board members actually set the policies. So in Tallahassee's case, they're on an 18-month tree trimming cycle where JEA's may be three years.

COMMISSIONER BRISÉ: But I could see -- I guess it would go down to policy. OUC has that responsibility. JEA has that responsibility. But I could see a smaller city looking at its budget and looking at decisions and the income that comes from the utility and making adjustments based upon the reality that we haven't seen a storm in God knows how long, and there isn't that interest from the citizens to move forward with that. I'm just trying to get a sense of how those dynamics impact that and that level of independence that needs to exist in order to make these decisions and make them consistently.

MS. ZUBALY: I don't think in terms of tree trimming that even some of our smaller cities see that as an opportunity to save money on their budget. Particularly seeing the last storms that came through, they know what it's like if you don't -- if you aren't hit for a lot of years and that they can't get relaxed on policies like that.

And so I haven't seen -- everybody submits storm hardening reports to the PSC, and the vegetation management is in all of those. And I haven't seen any kind of cutback on those. I kind of glance through them if they come my way, which they don't always. But I haven't, I haven't really seen that on any of our cities. They take this very seriously on their preparedness and making sure that their system is as strong as it can be. And, you know, our -- just like you all as being officials, and city officials, you know, they are with their customers all the time. They run into them at Publix and Wal-Mart. And so they're kind of the frontline responders, and they need to be prepared to answer those questions. So I don't see them cutting back on some of their tree trimming policies.

COMMISSIONER BRISÉ: Perfect. Thank you.

CHAIRMAN BROWN: Commissioners, any other questions before she moves on?

COMMISSIONER PATRONIS: Yeah.

CHAIRMAN BROWN: Commissioner Patronis.

COMMISSIONER PATRONIS: Kind of dovetailing into what Commissioner Brisé is bringing up, and I'm not trying to be the mean guy at the table, but --

COMMISSIONER GRAHAM: Too late.

COMMISSIONER PATRONIS: -- a couple of years

ago we had a texting while driving bill in the legislature.

CHAIRMAN BROWN: This conversation again?

COMMISSIONER PATRONIS: Yes. And I -- it's my only shtick. Okay? You like that. So -- but I hated the legislation and I fought against it. But then I had somebody point out to me that, you know, well, sometimes we've got to have a way that mom and dad can tell their child it's against the law and we had to have the state be the boogie man.

Do we need to have a boogie man with municipalities and enforcing some type of standardization with vegetation? Does that -- I mean, and I look at the City of Tallahassee and it's a beautiful city and a very attractive city. But when you've got the will of the folks that govern it tied to a ballot, it's kind of hard to be enforcing over public good as opposed to, "Well, gosh, why are they" -- and it happened with my brother. My brother lives up in the northern part of Bay County, and the co-ops came through and trimmed trees. And, you know, all they could do was ask for forgiveness after the fact, but it needed to be done. It needed to be done. My brother got upset, you know. But sometimes it's kind of hard to do it with the cities, and I'm just kind of worried about what

happened. And my brother was here during the storm back in '85, '86, and it was the same, same challenges.

MS. ZUBALY: Yeah. You know, again, I think that the consistency level of their vegetation management across the board seems to be pretty consistent with most of what the other utilities in the state do, between a two- to four-year cycle, depending on what level the utility has adopted.

Tallahassee is in an 18-month tree trimming cycle. They've been at that for a little while. They're just not increasing their variance beyond the wires from four to six feet to twelve to eighteen.

COMMISSIONER PATRONIS: That's what I meant, just --

MS. ZUBALY: Yeah, expanding it out.

So, you know, and it's going to vary on community to community based on how many trees. You know, Tallahassee has a heck of a lot more trees than Jacksonville Beach does. So, you know, a tree trimming process is going -- it's hard to kind of standardize that from community to community. But I am, I am confident that our members are aggressively on that and that it's a consistent basis for them.

CHAIRMAN BROWN: Commissioner Polmann.

COMMISSIONER POLMANN: It would seem to me --

and I appreciate the discussion here. Tallahassee, for example, has, and I'm only referencing that because you've cited the numbers, you know, from a certain range of feet to a different range. I think our interest, if I understand the discussion, is a question of whether there should be some standard for purposes of uniformity to inspire utilities around the state to provide a similar level of what I'll call protection in the interest of service to the customers.

Now recognizing that the environment and the circumstances around the state are going to be very different, for example, Tallahassee to Jacksonville Beach, there are other ways in which a performance standard could be written rather than a numeric standard or some other metric, and so the discussion could move to other ways in which a standard could be established. And I'm wondering if it would be appropriate to pursue that question. Now how we would do that, I don't know. Procedural becomes a policy and then how, how is that, you know, put out to utilities that we don't --

CHAIRMAN BROWN: Regulate.

COMMISSIONER POLMANN: -- regulate here for purposes of rate setting. But, you know, what is our reach? Now we can have that discussion another time, but, you know, if it's of broad interest for reasons of

service, you know, and equity in terms of, you know, what we're talking about here today, I'm sure there are other ways and I would simply raise that. I think it's an important point, so I'll just leave it at that.

CHAIRMAN BROWN: Well, first off, I just want to thank you because you did not have to come out here to our invitation today. Really, you did not have to. And I really, on behalf of the Commissioners, thank you. And, you know, I'm not going to apologize for the questions you're being asked.

MS. ZUBALY: I appreciate that.

CHAIRMAN BROWN: But, you know, really, it shows a lot of your leadership to come here and kind of sit here and take some questions, some thoughtful questions, and have this dialogue. And I know you're working on these issues.

MS. ZUBALY: We are, yeah.

CHAIRMAN BROWN: And we look forward to having continued discussions.

Commissioners, any further questions? I'm just going to fast forward here.

COMMISSIONER BRISÉ: No. Thank you.

CHAIRMAN BROWN: Thank you.

MS. ZUBALY: And thank you again.

CHAIRMAN BROWN: Thank you so much for being

here.

MS. ZUBALY: Thank you for bringing us here, and we can be in touch on answering more in the future, if you'd like. Thank you.

CHAIRMAN BROWN: Excellent. Thank you so much.

All right. And now our last speaker, but not least by any means, and thank you again, as Ms. Zubaly, I pronounced her name again wrong, but, Mr. Willingham, thank you for being here. Again, you accepted my invitation graciously and I appreciate that. And we'll try to go easy on you, but you're the last person. Welcome.

MR. WILLINGHAM: No, I have thick skin. Go for, go for it.

CHAIRMAN BROWN: Good.

MR. WILLINGHAM: I don't want to say ditto, ditto, ditto all day, no matter how much you like ditto. But it's great to be here and I'm glad to tell you about the co-ops and why we're a little bit different. I'll focus more of why we're different than what we actually do because there's not that many similarities -- differences between what you've already heard.

For the co-ops, we've got 16 distribution co-ops in Florida. And we call them distribution

co-ops. It's a little bit misleading. A lot of them have transmission also. There is one distribution co-op in Florida, Lee County, which is not a member of our association. So I don't know -- I know some things about them but not everything.

We are predominantly in the residential areas, in the -- I'm sorry.

CHAIRMAN BROWN: Rural?

MR. WILLINGHAM: Rural areas, yes, but we serve -- you know, predominantly our customers are residential, agriculture, and small commercial. So when you look at the EOCs, the counties, the state, they have this priority list and here's our key customers. They're generally not the ones that serve those customers. So for us, our priority is getting the Wal-Mart back up so people can get gas, water, ice, food, whatever. So it's just a -- we have a little bit different perspective and a little bit different customer base.

The other problem is -- well, lots of -- being in the rural areas, we only have, like, the smallest co-ops are about five customers per mile of line. So when you talk about hardening per customer, that's a big cost depending on how far you want to go. We do have co-ops that go up to -- most of the larger co-ops go up

to about 15 or 20 per mile of line. But our shining star is the Florida Keys, which is 40 per mile of line, which is much closer to the IOU standard just because of the way they're built. I'll talk about that a little bit more in a minute.

We also have the two generation transmission co-ops. They serve 13 of the distribution co-ops. We have two that are requirements (phonetic) from FP&L and one that's served out of the Georgia G&T. But collectively we're about, a little bit over a million meters. I think we're actually about 11 percent of the state's population. It might be 10, but I think it's closer to 11. But we serve over 60 percent of Florida's land mass. So, again, you get back to the rural area that we serve, and the, you know, the cost per customer is a significant factor for us because of the miles of line we have per customer.

CHAIRMAN BROWN: Which of the co-ops is the largest? Is it Peace River?

MR. WILLINGHAM: No. The -- are you talking about land mass or customers?

CHAIRMAN BROWN: Customer base.

MR. WILLINGHAM: Customer base is Withlacoochee down there just a little bit north of Tampa. They've got about -- they're a little bit over

200,000. Clay Electric in Sumter and Lee County are also either around 200,000 or just below 200,000. And then you go to the smallest co-op in the state, which is Escambia River over in Escambia County, and they're about 10,000. So we've got a pretty wide variety. But even the big co-ops will tell you they're still a small utility.

CHAIRMAN BROWN: But you must face unique challenges that some of the other utilities -- I mean, because you're so rural, there must be some interesting challenges that the other IOUs --

COMMISSIONER PATRONIS: It would be hard to have smart meters.

MR. WILLINGHAM: Yeah. Well, yes, we can cost justify smart meters more easily than almost anybody because you look at the time it takes to do the meter reading and to do the cut-ons and cut-offs.

CHAIRMAN BROWN: Right.

MR. WILLINGHAM: I mean, there's a lot of driving that we save. So we were some of the first ones to get the smart meters in Florida.

COMMISSIONER PATRONIS: So smart meters are, smart meters are a possibility in the co-ops even though there's a lot of distance maybe between home to home?

MR. WILLINGHAM: We're a very high percentage

of smart meters.

COMMISSIONER PATRONIS: Is that right? Okay. I learned something. I figured it would have been more of a logistical challenge.

MR. WILLINGHAM: No, no. No, logistically it's not a problem. It's -- but when you look at the driving time that we save versus a more denser utility, it's huge for us. So it's much easier to cost justify it for us.

CHAIRMAN BROWN: That's excellent.

MR. WILLINGHAM: In fact, the Florida Keys actually had the old version, the one-way meters back in the early '90s. So we've been innovators in a lot of technology things because it just --

COMMISSIONER PATRONIS: Makes sense.

MR. WILLINGHAM: -- yeah, it makes a lot of sense for us.

As you look at the map, this kind of shows where our footprint is. But within this footprint, for example, Tri-County, which is just east of here, you know, Perry, Madison, Monticello, they don't serve those cities. Duke serves the cities and we serve around the city. Also like -- you know, the City of Tallahassee is not on here, but this just kind of gives you a general footprint of where we serve.

One thing that is unique about electric co-ops, we have a -- in addition to the regulations that we have at the Public Service Commission, we have a federal regulator, the Rural Utility Services. Most of the co-ops have RUS loans, and because of that, they're subject to RUS standards. RUS has construction standards, material standards, vegetation standards, all these things that we follow.

In fact, for those who were here in the 2004, 2005 range, the PSC came up with a bulletin that said, "Hey, here's how you should do your pole inspections." It was the RUS bulletin. And we kind of got a kick out of it because one of the utility commissioners that we'd been having some issues with said, "You know, we're going to force you to follow this way." "You can't. The feds already make us do it." So we have a lot of people that regulate us.

But really for us in the rural areas, we have a lot of opportunities that aren't available to the other utilities. When we cut vegetation, we cut vegetation. Because the -- you know, I mean, we'll go in a 20-foot cycle sometimes. Because it's -- you want to be own a four-cycle, we'll cut 20 feet because it just costs so much money per customer for us to keep going out there and cutting the lines. So it's -- you

know, there's pluses and minuses.

CHAIRMAN BROWN: Yeah.

MR. WILLINGHAM: And the other thing is, you know, when you look at our customers, they're -- most of them are people that have their own generators already. They're -- it's just not that big an impact to them. That's why you don't get many calls up here during a hurricane.

CHAIRMAN BROWN: Right.

MR. WILLINGHAM: And everybody's been talking about the --

COMMISSIONER GRAHAM: Lots of trees.

MR. WILLINGHAM: Yeah. Well, and that's the other thing is they've got so many trees, it's like, "Yeah, take some of them. We don't care."

COMMISSIONER BRISÉ: Save me some money.

(Laughter.)

MR. WILLINGHAM: So it's a little bit easier. But on the -- I know a lot of people talked about their apps, things like that. We've got a couple of co-ops that have apps. But just the communication is the -- you can actually report outages with some of our apps. You can report by text now. The co-ops have really been great on technology.

CHAIRMAN BROWN: That's great.

MR. WILLINGHAM: So all that kind of stuff.

I did want to put these up real quick. Stan talked earlier about some of the different construction standards. And I put this up here, but it's more for illustrative purposes. Don't ask me what the formulas mean, you know, where they came from and all this because I honestly don't know. But it's just to give you an idea of when you look at the state, we've got some wide ranges of potential wind loading. And this all relates back to when you get into, like, a vegetation standard, you know, should it be standardized across the state? Well, I can tell you no because, you know, it's different. The hardening plans shouldn't be the same across the state. You know, those in the 150-mile-an-hour wind zone, that's very different than those in the 100-mile-an-hour wind zone, a very different thing.

So, you know, I think it's a great -- it's something that needs to be talked about for sure. But I will tell you I've got some friends that have been in Tallahassee, friends of the family that have been here their whole life. And if we took down their canopy roads, they would be really unhappy.

CHAIRMAN BROWN: Uh-huh.

MR. WILLINGHAM: So there's a lot of things to

consider on the tree trimming. But for -- I can tell you, for Talquin having to deal with Wakulla and Leon County, it's a very different standard for them.

CHAIRMAN BROWN: Right.

MR. WILLINGHAM: And to be honest, there's some situations you come into and there's just that pile of trees, and you say, "Okay, that's our last customer, last place we're going to go to work because it's going to take so much time to get that customer on." So they're making a choice whether or not they realize it. When they want to have a jungle, that's their consequence.

CHAIRMAN BROWN: Yeah. You know, that happens in urban areas too. I mean, it's the same thing. I live on a canopy road, and those neighbors, they would -- they hate it. They would rather, you know, risk it and have that beautiful canopy tree than have, you know, a utility come in there and cut it.

MR. WILLINGHAM: Right. So it's a tough issue. There's no silver bullet on that one either unfortunately.

One of the things that I thought was a little bit interesting here. I went ahead and put the maps side by side, and you can see even though Lee County is not one of our members, I thought it was kind of

interesting, they're actually in three different wind bands on this. So if you look at just trying to standardize a hardening plan just within the Lee County Co-op, you know, it's going to be different. You're going to be spend more money on the coastal side than you are inland.

CHAIRMAN BROWN: And they're in FPL's area -- right? -- Lee County Co-Op, like right in the FP&L area?

MR. WILLINGHAM: They're in the FPL footprint, sure, and they are non-requirements (phonetic) customer of FP&L.

I told you a minute ago about the Florida Keys. You can see they're obviously in the extreme wind standard for Florida. After Wilma came through, they decided they were going to build their system to the 150-mile-an-hour standard. Now they didn't go out and tear everything down and rebuild it, but as they go forward, everything will be built to the 150-mile-an-hour standard. But they are unique from a co-op perspective just because of the density they have. But also their system, if you ever have driven down US-1, you'll see that almost -- most of their system is underbuilt on their concrete transmission poles. So for them it's a, a pretty easy decision to make. But even though they're up to the 150 or they will be to the

150-mile-an-hour standard, it still doesn't defend you from storm surge, flying debris, trees, things like that. So, again, you know, you're going to do the best you can, but there's still going to be outages. There's no way to prevent outages.

Pre-storm activities, we're no different than anybody else. That's all been covered.

The hardening efforts --

CHAIRMAN BROWN: You've got mutual aid agreements in place for all the co-ops or --

MR. WILLINGHAM: Well, yeah, it's actually interesting, and it's, I guess -- I don't know if it's semantics, but as Amy talked about, we have the national agreement between all the municipals and co-ops. And we are blessed in that throughout the south and the southeast there are a lot of co-op resources. So we generally don't go outside of the co-op family other than contractors.

But, like, with -- for Hermine we actually had a situation where FP&L said, "Hey, we've got some contractors we can release," as Eric said, "in the Lake City area." Well, our co-op in Live Oak said, "Hey, those are the same contractors we use. You know, we don't even have to house them, so let's use them."

So there's always things that come up that you

can do better and things that are more efficient. But generally because of the RUS standards and just kind of the co-op model, we prefer to have co-op linemen if at all possible. It just makes a lot of sense.

Let's see. On hardening, you know, they file their reports with you guys every -- I don't know if y'all ever look at them but --

CHAIRMAN BROWN: We do, absolutely.

MR. WILLINGHAM: Okay. But you can see what they're doing. And then I don't need -- I haven't looked at them, so I honestly don't know what they're doing. You're ahead of me.

But the -- oh, the other thing I forgot to mention, RUS also requires emergency response plans. So they've all got their plans. They do their mock storm every year. I don't think that there's much difference there other than the scale of --

CHAIRMAN BROWN: Can you fast-forward to lessons learned from the past hurricane season?

MR. WILLINGHAM: Absolutely. I would love to. Really the biggest lesson learned is that when you don't have a storm for about ten years, people retire and they kind of forget. They practice their own storm plan but we weren't really practicing the statewide plan. So in a couple of weeks we're going to be down in Ocala doing

a full-fledged storm thing just so everybody understands. And we do a lot of work with our out-of-state co-op friends. We have an annual meeting. Usually after a big hurricane we'll have another meeting in January to do kind of a recap. So we're -- that machine is pretty well greased.

The one thing that I did learn this year too, the -- you know, for us, we've got some co-ops that have like 65 employees. So when you bring in 500 people to help, like we did with -- well, with Hurricane Ivan we had to in Escambia. We brought in 500 people to help them out, and they've got about -- I think they had 68 employees at the time .

COMMISSIONER BRISÉ: Wow.

CHAIRMAN BROWN: Wow.

MR. WILLINGHAM: But now with all the technology you've got, your scope of management has vastly increased. So it's much easier to control these people and manage them, everybody is in touch. It's just -- the technology has just been a huge help to us and really increased our efficiency. It's not going to prevent the outages as much, but it will definitely help our restoration.

And the one thing I can tell you too about the communications, I know that it's improved. We're doing

everything, you know. You can report an outage by text, everything else, but our office didn't have one single call this time about somebody saying, "I can't get through to my co-op."

And the other thing that's really cool for our call centers, even though the calls are way down because of all the technology, we now have a way to transfer all of our calls to another call center if our communications are down or something like that.

CHAIRMAN BROWN: That's great.

MR. WILLINGHAM: So, you know, for 2016, not that 2016 was the end-all be-all for bad hurricanes, but it worked 100 percent, so --

CHAIRMAN BROWN: Wonderful.

Commissioner Graham has a question for you.

COMMISSIONER GRAHAM: Thank you, Madam Chair.

Bill, I know the co-ops were involved in the governor's meeting last year and the munis and the IOUs. I guess to further that dialogue, now that you're here in front of us, what sort of things can we be doing to help you in the future moving forward?

MR. WILLINGHAM: To be honest, I really can't think of anything. I think we've got things pretty well figured out. It's -- you know, as we talked about with the -- we're into a new area where the -- we've always

worked very closely with municipals and we've -- you know, they -- when they got done with Ocala with Hermine, we moved their crews over to Clay Electric right next door. So we always coordinated real well with them. And now with the open doors with the IOUs, we've really got some new opportunities. And obviously the contract crew, that was new for us. That was a big help. So it's just -- it's -- you know, communications are the big thing. And now we're -- you know, the governor has got us all talking to each other a lot better than we were. But just the -- I mean, everything with -- and I know I've mentioned this before, but your man Rick Moses does a great job at the EOC.

CHAIRMAN BROWN: By the way, Rick Moses is in the room. Rick, nice to see you here and --

MR. WILLINGHAM: I mean, he does a lot of the quarterbacking for a lot of this stuff, and he'll get us talking to each other, if we need to talk.

COMMISSIONER GRAHAM: Well, I mean, just, like I said, because you're here -- and, Madam Chairman, thank you for including him to this, to this dialogue. As things come up, as you think about things, as you walk away today, you know, if there's something that we can do as an agency, please let us know.

MR. WILLINGHAM: Yeah. I'm not shy. I'd be

glad to.

CHAIRMAN BROWN: No, you're not.

Thank you.

Commissioners, any other questions?

Thank you so much for coming out here again, and I look forward to continued dialogue. Again, like Commissioner Graham said, please feel free to reach out and let us know if there's anything that you think we should be doing to help you.

MR. WILLINGHAM: Thank you. Okay.

CHAIRMAN BROWN: All right. This has gone on almost three hours. If Commissioners don't have any other questions, this meeting is officially adjourned. Thank you so much for being here, guys, and staying.

(Meeting adjourned at 4:22 p.m.)

STATE OF FLORIDA)
: CERTIFICATE OF REPORTER
COUNTY OF LEON)

I, LINDA BOLES, CRR, RPR, Official Commission Reporter, 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 4th day of May, 2017.

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