BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of:

DOCKET NO. UNDOCKETED

TEN-YEAR SITE PLAN.
_____/

PROCEEDINGS: WORKSHOP

COMMISSIONERS PARTICIPATING: CHAIRMAN ART GRAHAM
COMMISSIONER LISA POLAK EDGAR
COMMISSIONER RONALD A. BRISÉ
COMMISSIONER EDUARDO E. BALBIS
COMMISSIONER JULIE I. BROWN

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P R O C E E D I N G S

CHAIRMAN GRAHAM: Good afternoon, everyone. I'm glad y'all made it back here, or some of you back here. Some of you are just here after lunch. Let the record show it is Tuesday, August the 12th, and this is our Ten-Year Site Plan workshop.

I guess to get everything started we have to have staff to read the notice.

MR. MURPHY: We're here pursuant to notice for a Commission workshop on the 2014 electric utility Ten-Year Site Plans.

CHAIRMAN GRAHAM: Okay. Well, probably the best way, the easiest way to start all this is I guess we'll just jump right into the presentation from FRCC.

MR. ODOM: Good afternoon, Mr. Chairman and Commissioners. My name is John Odom. I'm Vice President of Planning and Operations for FRCC. And I want to thank y'all for giving me the opportunity to make this presentation today.

I'll begin today with a little bit about FRCC's purpose and then give a brief overview of the results contained in this presentation, the executive summary. Then I'll go into more detail into the four major areas contained in this presentation: The load and resource plan, fuel reliability, key EPA air quality

regulations, and I'll end with some information on the physical security efforts that are going underway for control centers, transmission, and substation facilities.

The purpose of FRCC, we exist to promote and enhance reliability and adequacy of the bulk electric system. We have a focus on operations as well as planning. We're looking at it now and into the future. The FRCC region is peninsular Florida, or all of Florida east of the Apalachicola River.

So I'll begin today with the highlights of this presentation. The planning reserve margins throughout the ten-year period are greater than 20 percent, and demand-side management is projected to be a major component of those projected planning reserves. The information that I'm presenting today is as of April 1st, 2014, when the utilities filed their Ten-Year Site Plans, and it doesn't reflect changes that have occurred since then, and it doesn't consider the impact of what changes to the plans may come out as a result of the proposed EPA rules.

Demand response in FRCC reduces the summer peak by an average of about 6.7 percent throughout the planning horizon. Energy efficiency and conservation sponsored by the utility, those programs lower the

demand in the summer peak by 1.5 percent by 2023.

CHAIRMAN GRAHAM: I'm sorry. I didn't mean to cut you off. I -- a little technical difficulties. I don't have the presentation in front of me.

MR. ODOM: Oh.

CHAIRMAN GRAHAM: And I can't look back over my shoulder like this.

MR. ODOM: Well, that's not good.

CHAIRMAN GRAHAM: So let's just hesitate here for about five minutes or so.

MR. ODOM: Okay.

(Pause.)

Okay. You can continue.

MR. ODOM: Oh, does everybody have it now?

CHAIRMAN GRAHAM: Yes.

MR. ODOM: Oh, okay.

Additionally, the energy efficiency delivered through the mandated codes and standards account for load reductions of about 4 percent by 2013 [sic]. And by 2023, renewables will account for approximately 1.24 percent of the energy served within Florida. Energy production from natural gas is expected to increase by 10 percent by 2023.

CHAIRMAN GRAHAM: Hold on just a second.

Commissioner Brisé.

COMMISSIONER BRISÉ: Yes. Just a quick question. On page 4 of your slides, on the fourth bullet point you mention by at least 4 percent, and you said 2013. I'm assuming that you meant 2023.

MR. ODOM: I am so sorry. I did mean 2023. Thank you.

COMMISSIONER BRISÉ: Okay. No problem.

MR. ODOM: There is a third gas pipeline into the state under development that will provide diversity in the gas deliverability to the state. Also, the impacts of the EPA regulations, the Mercury and Air Toxics rule, the last time that we were here we said that there were some transmission reliability issues associated with that. And the Crystal River Units 1 and 2 are expected to remain available until April 2018, and they're expected to have two new combined cycle units of 1640 megawatts by 2018.

Also, the Florida utilities and utilities around the country are providing comments on the new proposed CO2 rule. This is an issue that is, is emerging and has garnered a lot of attention.

And then finally, NERC has approved and submitted to the Federal Energy Regulatory Commission a new standard on physical security, and the Federal Energy Regulatory Commission has issued a NOPR on that

rule. So I'm going to provide additional detail on that and all these other summary items throughout the presentation.

So we'll jump into the load and resource plan. For the load and resource section I'll begin with some of the factors that are driving the load forecast through the period. Florida's actual unemployment continues to decrease. Population growth is beginning to gain some momentum. However, Florida's gross state product levels are lower than were projected in the 2011/2012 time frame. That is, the gross state product has not recovered as quickly as expected from the 2011 and '12 time frame.

Forecasted energy sales, total energy sales, and the peak demand for the winter are expected to be lower for this study period compared to last year, but the forecasted summer firm peak demand is expected to be higher beginning in 2017.

COMMISSIONER BROWN: Thank you. May I ask you to elaborate on the reasons why?

MR. ODOM: The, on the forecast of the, of the energy?

COMMISSIONER BROWN: Yes.

MR. ODOM: The winter -- we had an abnormally high winter, and so those, that caused the -- last year

people were expecting that that was going to continue until -- so it flattened out. And in the summer peak demand, it's driven primarily because of the expectation that there's going to continue to be population growth and, and more increased demand that comes along with that population growth.

This chart shows the historical actual summer peak demand from 1990 through 2013. The dashed line is, is what would be considered a, the slope of that line or the best fit for that line. The red line at the, at the bottom is the projected firm demand. That's the demand that we use for our reserve calculations because that takes into account all the impacts. But we did want to show you the impacts of demand response and the energy conservation and energy efficiency programs.

The goldenrod line, the next line up, is what the forecast would be without the use of demand response to the load management or interruptible load. And then the line above that, the yellow line, is the impacts without the utility-sponsored energy efficiency and energy conservation.

This chart gives a closer look at the summer peak demand forecast. The, again, the red line shows that the demand is expected to be up to approximately 49,500 megawatts in 2023, with 2014 expected to be about

43,000 megawatts of demand. The goldenrod line again is the load management and interruptible. That's where the load forecast would be without the demand response. And the top line takes out the energy efficiency and conservation programs that have been sponsored by the utilities.

And this chart on page 10 compares last year's peak summer forecast to this year's forecast. The gray dashed line is the forecast that was provided in 2013 and the red line is this year's load forecast. And as you can see, the 2014 summer starts out lower because the demand growth hasn't been as strong as it was expected, but it is beginning to pick up steam. And the expectation is that it'll be slightly higher. It crosses over beginning in 2017, and it's slightly higher throughout the, throughout the ten-year period than what was expected last year.

Now I'll spend a little bit of time talking about the winter peak. This is the same chart except for the winter peak, and you can see that it is, it is significantly lower this year than it was last year. Last year we expected the winter peak for 2014/15, this coming winter, to be about 44,000 megawatts. This year we're expecting that to be a little less than 42,000 megawatts. And then if you go out to the 2022/23

winter, you'll see that we're -- that our forecasts are based on 40 -- almost 47,000 megawatts of winter demand in 2022/23 compared to almost 49,000 megawatts last year.

So we talked about the summer peak demand and the winter peak demand. This chart on page 12 talks about the total energy. That's the amount of energy that is expected to be consumed throughout the whole year. Again, this number is, is a little lower than what was projected last year. Last year there was 255,000 gigawatt hours projected in 2022. This year we're saying it's going to be 252,000 gigawatt hours, or a total energy reduction of about 3,300 gigawatt hours out at the ten-year period out at 2022.

This chart shows the, how the compound average annual growth rate in megawatts of the firm peak demand change by the forecast years. In 1992, the FRCC entities were forecasting an increase of about 2.3 percent per year, and it had remained steady and grew from there. And it topped out at about 2.5 percent per year of annual growth in 2005 and then it began declining. In 1995, the average was between 1.8 and 2.7 between '95 and '01. And for the, for the -- beginning in 2005 it's been dropping quite dramatically; whereas, in 2014 the compound average

annual growth rate is 1.7 for the summer period, which is the red line, and 1.4 for the winter period. And this is the growth rate that's expected over the ten years looking forward.

This is the last load forecast slide. Now we'll get into the generation side of the equation. This is a chart that shows the summer resource capacity in megawatts by year. The blue base down at the bottom is capacity that's owned inside the region by the, by the utilities. The orange that sits on top of that is the capacity that the utilities own outside the region and import into the state. And then the green is the additions minus the retirements or the net changes in the utility plans over the next ten years. And the purple represents the firm contracts that have been signed by the utilities with non-utility generators. And then on top of that is the light blue, which represents the other imports into the state other than those that are owned by the utilities.

Today, utilities in Florida own almost 49,000 megawatts of generation in the region, and they're adding almost -- or expected to add almost 8,000 megawatts by 2023. And the other numbers remain fairly constant except for the imports, which are expected to drop by about 1,100 megawatts from what they

are today by 2023.

This chart shows the planning reserve margins for both the summer and the winter periods throughout the ten-year period. The blue shows the winter and the red is the summer. The reserve margins are all above 20 percent, and these, these charts include the reductions that come from load management and interruptible load. And so you can see that the reserve margins are over 20 percent for the entire period with those reductions.

And then the next chart on page 16, we did a similar chart but for a different focus. This chart we've taken out the demand response and the energy efficiency and conservation programs that are sponsored by the utilities to see what the, what the reserve margins would be. And as you can see, beginning in 2017, without those two major components, the summer would drop below 15 percent. Not that anyone expects that those things would go away, but this chart just allows us to look at the impacts of those programs and what kind of impacts they have on the reserve margins. And the demand response and load management programs have a, have a pretty significant impact on the reserve margins within FRCC.

This slide compares -- shows how FRCC is doing it compared to other parts of the country for demand

response, demand-side management. There are eight areas that are reported here. As you can see, FRCC has a 6.8 percent reduction in peak demand for demand response, and the highest of these major regions is 7.1. So we're the second highest in the demand response for the major geographic areas across the United States.

So the conclusion on the reserve margins is that the planned reserve margins for FRCC are expected to be greater than 20 percent. The demand response programs make up a significant component of that. And, you know, with the, with the planned additions over the, over the period they are above 20 percent. And that we have a large amount of demand response within the FRCC region.

The next few slides, I'm going to discuss the fuel mix within Florida. The fuel mix, I know, have some information about nuclear and renewables in the slide.

This first set of charts shows the net energy to load in gigawatt hours from the various sources. And as you can see, the gas is 58 percent of the energy comes from gas in 2014, and in 2023 it will be 57 percent. But I do want to note that, that even though the gas percentage remains relatively constant, natural gas is going to increase by about 10 percent,

the uses of natural gas for electric generation is going to increase by approximately 10 percent over the, over the other periods. Nuclear is going up from 13 to 17 percent, and coal is going down slightly. And as I had said previously, this doesn't include any of the impacts from the proposed EPA rules.

This shows the capacity. The last chart was the energy. This shows the net capacity for the summer months. In 2014, you can see that 62 percent of the generation is gas-fired, and of that 40 percent has dual fuel capability. And in 2023, that number goes to 65 percent. So even though there's a small amount of decrease in the energy, the capacity number goes up slightly during that period. That 40 percent for dual fuel capability stays the same in 2023, and that is, that dual fuel capability is important for our fuel diversity. In 2023, there's about 6,300 megawatts more of natural gas capacity than there was in 2014.

This slide on page 21 shows the existing renewable resource capacity for the summer period in megawatts. There's approximately 1,434 megawatts of renewable capacity. 59 percent of that renewable is biomass and municipal solid waste. That represents over 800 megawatts of capacity. The heat recovery is next with 22 percent, and then about 15 percent from solar,

and smaller amounts from wind and hydro plants. So that's the existing makeup of the renewables within the, renewable capacity within FRCC.

Now for the forecast, by 2023 we're expecting approximately 400 megawatts more of biomass, which will bring us to a total of about 1,200 megawatts of biomass. Municipal solid waste is 162 megawatts. And solar, the utilities are expecting to add 314 megawatts of solar by 2023. 300 megawatts of that is from two projects on the Duke system, and the remaining 14 megawatts are made up by multiple other projects, smaller projects across the, across the state. So the total expected capacity by 2023 is about 2,300 megawatts.

Now on to the nuclear outlook. We've got St. Lucie 1 and 2 and Turkey Point 3 and 4. They represent about 3,600 megawatts of summer capacity. And in this ten-year plan there were -- Turkey Point 6 and 7 are new 1,100 megawatts that are planned to come online in 2022 and 2023, for a total of 200 -- 2,200 megawatts of additional nuclear capacity towards the end of the ten-year period.

So the conclusion for the load and resource plan based on the plans filed, by the April 1st deadline the FRCC region will have adequate plan reserves over the ten-year period, and the demand-side management is a

significant component of that. FRCC's role in looking at these load and resource plans is to evaluate and monitor the utilities' plans, and we plan to do that on an ongoing basis, you know, particularly with some of the changes that are being, that are being proposed with the new EPA rules.

So next I'm going to go to the fuel reliability section. The FRCC continues to have its Fuel Reliability Working Group. This group is made up of utility representatives that are familiar with the fuel reliability. It's primarily focused on natural gas at this time. They review the existing inter-dependencies between fuel deliverability and electric reliability, and also they're responsible for coordinating regional responses to any emergencies or fuel issues that may arise.

I have mentioned previously about the energy production from natural gas. This shows a little bit more granularity about that. You can see that it has continued to grow until 2020 -- 2012 and dropped slightly in 2013. The green and the orange -- green and orange -- the green and blue lines that go out, you can see they track fairly well from last year's forecast to this year's forecast. There is a small decrease of about 5,000 gigawatt hours of expected energy from, from

gas in the, in the final year of this, this study period. And as I've said before, this could change as the resource mix changes based on the proposed EPA rules.

We added this slide to show a little bit of the natural gas statistics within Florida about the consumption and production and pipelines. The first column shows that Florida is number four of the ten largest states in natural gas consumption and that we're number two for the use of natural gas for electricity. And we have very low natural gas production, that's the third column. And the total miles of natural gas pipeline in Florida is approximately 5,400. That ranks ninth out of the, out of the ten top gas users in the -- gas using states. And then, and almost no gas storage within Florida.

One of the things that I had mentioned previously that because of these statistics about the amount of gas usage, that we have been monitoring, you know, and talking with the utilities about their alternate fuel capability for their dual fuel units. And that, that look at fuel gives us some diversity against any gas supply interruptions.

Today the majority of the natural gas that comes into Florida comes in through two pipelines that

you can barely see on these, on these maps. The first is Florida Gas Transmission pipeline and the second is the Gulfstream gas pipeline that comes across the, the Gulf. As you're aware, there is a third gas pipeline planned in Florida. There's actually two pretty significant projects.

First, the Sabal Trail project. This proposed pipeline will connect with the other two pipelines at the south -- I'm sorry -- at the -- and create a Central Florida Hub by connecting into the Gulfstream and the Florida Gas Transmission. That hub and that connection, along with the additional pipeline, will give some diversity in the gas deliverability.

Sabal Trail is about 500 miles of pipe and will ultimately have five compressor stations. The Florida Southeast Connector is about 160 miles of pipeline, and it will terminate at FPL's Martin Generation Station and will begin at the Central Florida Hub that's being created with these projects, these proposed projects.

The next steps for the, for the gas pipelines project is to obtain the Florida environmental resource permit, US Army Corps of Engineers permit, and a FERC certificate of need. The expected in-service date of the third gas pipeline is May of 2017.

So a recap of Florida's status is that we have greater natural gas demand than all but three states and greater natural gas demand for electric generation for all the other states other than Texas, and we have minimal storage, and the gas pipelines are fairly low compared to the other largest gas consuming states.

The reliability conclusions, also, as I mentioned, the dual fuel capability helps prepare for when natural gas supplies become limited due to whatever kind of disruption may happen. So it's key to the operating flexibility of the natural gas generation in Florida. However, a disruption of one of the two major pipelines lasting for a few days could create some challenges trying to get alternate liquid fuel to those units that are able to burn the alternate fuel. And the third gas pipeline is under development and is expected to be in service by May of 2017.

Next we'll shift gears to the EPA air quality rules. First, I wanted to report on the Mercury and Air Toxics Standards. Last year when we were here we had identified a transmission reliability --

COMMISSIONER EDGAR: Excuse me. I'm sorry.

MR. ODOM: Oh, okay.

COMMISSIONER EDGAR: I did have a question, but you were on such a roll, I didn't want to interrupt

you. But this looked like it might be kind of a natural break.

MR. ODOM: Okay. Sorry.

COMMISSIONER EDGAR: So I apologize for interrupting you mid-sentence. On page 30, the first bullet, I understand the first part, but I'm not sure I understand the second part. "Greater natural gas demand to support generation than all states," I'm just not getting that point. Could you give it to me again?

MR. ODOM: Yes. Yes. No, that's quite all right. Texas has more generation that's powered from natural gas than any other state and we're second.

COMMISSIONER EDGAR: Okay.

MR. ODOM: Even though the total gas consumption we're, we're fourth. But when it comes to natural gas for electric generation, we're second in the, in the country.

COMMISSIONER EDGAR: By overall or per capita or --

MR. ODOM: Overall.

COMMISSIONER EDGAR: Overall.

MR. ODOM: Just raw number and size.

COMMISSIONER EDGAR: Okay. All right. Thank you.

MR. ODOM: Okay. So I did get on a roll

there. But we'll go back to the Mercury and Air Toxics Standards. Last year when we were here we had identified transmission reliability concerns linked with this proposed standard. The original concern was that with Crystal River 1 and 2 that by the rule they would have needed to be shut down by 2015. However, this issue has been addressed by a couple of things. One is the plan now is for Crystal River 1 and 2 to be run until April of 2018. The -- they got an original extension and then using some low sulfur fuels to get out to 2015. And then a replacement plant, now a combined cycle plant of 1,640 megawatts is scheduled for 2018 with half, or 820 megawatts scheduled to go in service in May, with the remainder to go in service in November.

So the new Environmental Protection Agency rules, they have issued a proposed rule in June 18th of this year. It proposes guidelines for gas emissions from existing stationary sources. The comment period extends until October 16th of this year. The entities within FRCC are in the early stages of evaluating this rule. Currently they're focused on the technical validity of the results and trying to determine what the impact could be.

NERC and FRCC are going to monitor and

evaluate the potential impacts of the rules. At this point, it's too early in the process to have identified any specific concerns, but we're continuing to monitor it. The major concern is that the rule could change the resource mix and the location of generation that could create some transmission reliability concerns within FRCC.

And at this point, you know, everybody is working hard to try to determine what the rule says and provide -- the utilities are providing comments and a lot of different people across the country are providing comments. And NERC is looking at, as part of its long-term reliability assessment, to identify what impacts the final rule may have. But that process is still a ways down the road, and we at FRCC are planning to continue to monitor what goes on and see how it, how the rule would impact what generations will run during what time period and what units had to be -- would be retired and those kind of things to determine if there are any transmission reliability issues about getting that generation to the load.

CHAIRMAN GRAHAM: Excuse me, Mr. Odom.

MR. ODOM: Yes.

CHAIRMAN GRAHAM: Commissioner Edgar.

COMMISSIONER EDGAR: Thank you. I did want to

follow up on that point before you moved on to the next subject. And I do recognize it's early in the process and it's very technical and a lot of different moving parts. But recognizing that the comment period is currently scheduled to close in October, will FRCC or, and/or NERC, to your knowledge, be filing comments on the impact or on the analysis from your perspective for Florida?

MR. ODOM: I'll speak for FRCC first. We are not expecting as FRCC to file any, any comments. Our position is that without knowing how the utilities might implement those, those changes, we don't really know what impact it's going to have on reliability, and reliability is what we're focused on.

I do not know about NERC, whether they are. But at this point I have not personally heard of them planning to file comments either.

COMMISSIONER EDGAR: You had some slides earlier -- 19, 20, and 27 were the ones that I jotted down -- that you said were the projections for energy capacity and renewables through 2023, not taking into account the impact of the EPA 111(d) proposed rule. Do you have similar information taking into account the impact of the proposed rule if it were to go into effect as it currently stands?

MR. ODOM: Right now we have not compiled any of those because those changes will be driven by how the individual utilities respond. There's a lot of different ways that they could respond. And until they actually develop what their plans would be to go into, or to meet the proposed rule, we wouldn't be able to comment or provide any information on the state as, rolled up to one spot. So we just don't have that information yet.

COMMISSIONER EDGAR: Okay. Thank you.

MR. ODOM: Okay. Moving on, we'll talk about the physical security of the infrastructure. In April of 2013 there was a pretty significant event that happened at the Metcalf substation. The Metcalf substation is a Pacific Gas & Electric substation and it's just outside San Jose. And it's one of two areas, or two major substations that serve the San Francisco Bay area and Silicon Valley.

They had -- their control center recognized that there was an intrusion into the plant. They didn't know exactly what happened. First responders found that there were multiple transformers and breakers that were damaged by gunshots, but there were no outages that were experienced during the event and no customers were impacted. However, it really is a game changing event

for the electric utilities.

In the past, utilities have had random acts, I will call them. You know, people shooting individual insulators or stealing copper off of transmission towers and all. But this was, this was a coordinated attack at a substation.

The next slide, the first thing that these attackers did was they went into an underground vault and cut fiberoptic cables. They wanted to make, to interfere with the electronic communication with the substation. They climbed into this vault and cut the fiberoptic cables about 1:00 in the morning. A little more than 30 minutes later the intrusion alarm started going off in the substation. The transmission operator also received several alarms. There were multiple gunshots from a variety of locations on the transformers and breakers. You know, so this was, you know, a very sophisticated attack and just very different than what we had seen. The damage that was done was ten of 11 transformers, 500kV transformers had gunshot damage.

CHAIRMAN GRAHAM: Mr. Odom?

MR. ODOM: Yes.

CHAIRMAN GRAHAM: Give me just a second. Commissioner Brown.

COMMISSIONER BROWN: Just a question. And I'm

familiar with the matter, but what -- did we ever find out what the modus operandi was from the perpetrators?

MR. ODOM: As far as -- the latest I've heard, they don't even know who it was. And there's been a lot of speculation about what and why they were doing that, but to this point I haven't heard anything credible about why they were, why they were, why they were doing this.

COMMISSIONER BROWN: And additional measures, security measure were thereafter immediately implemented.

MR. ODOM: The industry response has been pretty quick. It was very quick at that particular substation, and there's been a lot of activity and I'll talk about some of that.

In addition to the 500kV transformers, three of the four 230kV transformers had gunshot. The damage was primarily to the cooling devices, the radiators for the oil, and half of the 115kV breakers sustained gunshot damage.

One of the, one of the interesting things about the event is since there were gunshots reported, the police arrived on the scene but they didn't really see anything suspicious. The transmission operators and PG&E's corporate security each had information that

something was going on but they didn't piece together what happened.

The lessons learned specifically about that event is that between the first responders and the operators and security, that you need to coordinate and make sure that people actually understand what happened. One of the key things that has gone on is to try to make sure that local law enforcement understands the seriousness of this type call, and also the need to continuously monitor and evaluate the system.

So one of the key things that has happened is NERC quickly responded to develop a new security standard. In March of this year, FERC issued a physical security, an order on physical security that required NERC to submit a standard by June of this year. So NERC drafted the standard. The industry approved the standard in record time, about nine weeks. The standard was approved in May, and it was filed with the Federal Energy Commission on May 23rd of 2014.

FERC issued a notice of proposed rulemaking on July 17th of this year. They required a couple of major -- some changes to standard, a couple of major ones that I'll talk about in a minute. The initial comments on the Federal Energy Regulatory Commission notice of proposed rulemaking is due on September 8th,

2014.

The industry responded very quickly to FERC's order. And it is expected that FERC will approve the new standard in December of this year, and it will become effective on July 15th of next year.

Briefly, what the standard requires is for 500kV in large 230kV substations, and they've defined that as substations with five or more 230kV lines, and then the major control centers, that the critical infrastructure protection standard CIP-014 requires that the utilities perform a risk assessment to identify significant transmission substations. Next, that someone that's not affiliated with the utility must independently verify the risk assessment. Then the utility must develop -- must evaluate the potential threats and vulnerability of a physical attack. And then finally, they need to develop and implement a security plan on how they will response in case of a threat or an emergency at any of these major facilities.

CHAIRMAN GRAHAM: Hold on a second.

Commissioner Brisé.

COMMISSIONER BRISÉ: Thank you. I know that you're speaking about physical security. Is there something similar for cyber security type activity?

MR. ODOM: Oh, yes. There are many cyber

security standards that have been in place some time. Version 5 of those standards have just been approved and are being put in place right now. And so there are some very, very comprehensive things in place addressing cyber security. And, you know -- through -- starting with who has access and how they're vetted and what their background is, all the way through providing six wall barriers for those critical cyber assets. So those were in place.

What's different about this is with the physical security standard -- the electric grid is across the entire continent. You know, it's not, not within four walls of buildings like most of the cyber things. And so this is the first time that there's been a standard in place that addresses any physical threat other than a physical threat to those cyber assets.

As I, as I said, FERC was, the Federal Energy Regulatory Commission was proposing two major changes to the draft standard that was, or to the standard that was approved by the industry and submitted to them. The first is they're -- and they're asking for comments from the industry right now. The first is it would allow applicable government authorities to add or remove facilities from an entity's identified list. So essentially they're saying they believe they should be

able to identify a facility as significant and add it to the list. And then the second one that's fairly significant to the industry is -- we use a term that's probably a little more art than science of widespread instability, meaning that the system could start to have oscillations that could cause us to have cascading outages. And we call those widespread events, and they're proposing that we remove that and just any instability. And so I'm sure many of the utilities are going to provide comments about that.

In addition to the proposed standard, the industry and FRCC have taken many other actions as a result of this renewed focus on physical security.

Last year NERC held a GridEx exercise where they actually simulated a cyber and physical attack across the United States, and FRCC participated in that as well as many of our entities. And that was, that was quite an interesting exercise to understand the need for communication and how we're responding and how our emergency response plans, both the utilities' and FRCC's, some of the things that we may need to change in those. So that's one thing that happened as a result of that.

Next, FRCC already has real-time communications between all the control systems in

Florida, and so it's an all-call system. So if the, if an individual entity did have a credible threat and think that it might be a part of a coordinated attack, it's one phone call to the reliability coordinator, which is responsible for the overall reliability of the grid, and everyone, all the major utilities that have transmission systems in Florida will be notified immediately.

Another thing FRCC has done to address that is that we held a workshop on all the cyber security standards, including physical, and shared best practices and lessons learned with entities and made that available to other utilities.

And finally, FRCC has a Critical Infrastructure Protection Subcommittee, and they meet monthly to address best practices and lessons learned both on physical and cyber security.

So the utilities in Florida are very concerned about these issues, they're very engaged, and the needs of all of them are well aligned to try to ensure that if something like this attack happens here, that we'll be able to response.

The other thing that's a little bit unique about Florida, that because of all our storms, our hurricanes, we're pretty well practiced at emergency

operations and emergency procedures and we drill on those each year. And so, you know, so these kind of threats and these kind of activities are built upon a pretty solid foundation of communication between the utilities.

So that concludes the physical security section. I've got two more slides, an overall conclusion for the presentation. 20 percent reserve margins throughout the year. Energy production from natural gas is expected to increase by 10 percent. The third gas pipeline is under development. We're going to continue to monitor and evaluate what kind of reliability impacts there may be from a change in resource mix associated with the proposed EPA rules. The Crystal River Units 1 and 2 being extended out to April 2018, and the new combined cycle units at that location are -- have addressed the transmission reliability concern we've got in that area. And that the physical security standard with FERC issuing its NOPR, utilities are all providing comments on that. So with that, Mr. Chairman, that concludes my presentation.

CHAIRMAN GRAHAM: Mr. Odom, I wanted to thank you for coming today and for this slide presentation. It's a lot of information in here.

Commissioners, any questions on Mr. Odom --

for Mr. Odom, of Mr. Odom before we move to public comment? No?

Ms. Csank, you are up.

MS. CSANK: Good afternoon, Mr. Chairman, Commissioners. Diana Csank on behalf of the Sierra Club.

When it comes to energy services, families and businesses largely rely on the Commission to sort out their options and direct their hard-earned dollars towards safe, reliable, cost-effective power delivered by Florida's utilities. And for a long time this regulatory compact worked here in Florida. Through the ten-year site planning process and various dockets the Commission managed to oversee the utilities and protect consumers' interests. But in recent years consumers have been saddled with some indisputably bad deals, and bargains that would save energy and expand consumer choices are missing year after year from the plans and proposals filed with this Commission by the utilities.

Sierra Club maintains that the ten-year site planning process is one place where the Commission has the power and the responsibility to lead the utilities to correct course. These annual conversations about planning are exactly where the Commission should ask the tough questions and hold utilities accountable for

thorough, well-researched, and well-documented answers.

In particular, Sierra Club urges the Commission to correct three flaws in the planning process.

First, Florida power companies still do not compare resources in an evenhanded manner. Alternative energy options are ignored or screened out before they can compete with conventional power plants. This denies everyone, the Commission and stakeholders, the opportunity to systematically identify and pursue safe, cost-effective energy choice. In other words, we're missing the better deals because of a flawed planning process. And without elaborating or rehashing too much the FEECA goal setting hearing that took place here a few weeks ago, we saw there, for example, the two-year payback screen and the Rate Impact Measure test as examples of these types of screens that prevent some of the most cost-effective resources, energy efficiency measures from going into the utility's modeling and being part of these resource planning discussions.

Second, planning for compliance with environmental regulations all too often happens in a reactive -- in reactive piecemeal spurts. Take, for example, Gulf Power's failure to plan for mass compliance for the two coal burning units at Lansing

Smith. It's been over two years since Sierra Club filed comments urging Gulf Power to conduct a thorough analysis of the options to replace these uneconomic units with safe, cost-effective resources, especially energy efficiency. But today Gulf Power still has no compliance plan. Gulf Power's April filing says so and merely, quote, assumes that the two old coal units will keep burning coal over the next ten years. So the additional portion of the resource mix that we just heard will be made up by natural gas. Well, that doesn't fully take into account resource decisions like this decision at Lansing Smith that keep being delayed and deferred.

And so back to Gulf Power's assumption that these two old coal units will just keep burning coal over the next ten years, what is that assumption based on? The filing doesn't say. And how does Gulf Power account for having no plan to meet regulations that have been in the works for 22 years and were finalized more than two years ago? Gulf's plan is silent.

Has Gulf Power learned from its sister subsidiaries? Those subsidiaries filed MATS compliance plans long ago. And in some instances where, for example, Georgia Power decided to implement controls to comply with MATS, those controls took over three and a

half years to install from the construction date. So for a regulation that will go into effect next year, it's troubling that the company still doesn't have a plan. This Commission has approved certain transmission upgrades and they're important, but in terms of actually meeting the letter of the law and the MATS regulation, we still don't have a plan for that at Lansing Smith.

And what we're talking about here is a compliance plan for controlling hazardous air pollutants: Mercury, acid gases, and other highly toxic chemicals. Every day Gulf delays gratuitously harms public health and also hurts Floridians' wallets. Instead of sending hard-earned dollars out of state to buy coal, Gulf should grow the clean energy economy in the Panhandle. This is true for other power sector regulations. And so the Sierra Club urges the Commission to ask the tough questions about compliance options and costs for the regulations that apply to Florida's power sector, including the Clean Power Plan.

Sierra Club also urges the Commission to specifically hold the utilities accountable for investigating and pursuing the most effective resource mix potentially with the help from independent analysts from, for example, the Regulatory Assistance Project, the Georgetown Climate Center, and the Nicholas

Institute. They all stand at ready to assist this Commission with these important regulatory compliance issues.

And finally, planning to rely even more on burning natural gas misses the imperative to diversify Florida's power mix. This is the year 2014. The outlook for conventional generation is dim. So why should Floridians double down on power plants, especially gas burning plants, when we just heard we don't have in-state natural gas supply, we have minimal storage and limited infrastructure. The plans before the Commission today would lock consumers into decades of expenditures on plans that come with great market and regulatory risk. What's the price tag on the various proposals to secure Florida's current levels of natural gas? What about even higher reliance on gas? What are the risks associated with the current gas power and proposed expansion of it? How much will this cost accounting for the risk ten years out and 30 or 40 years out, which is how long these new expenditures in natural gas plants are supposed to last? Are there more flexible, safer alternatives; for example, energy efficiency home grown solar power? Why does Florida have less than other states and even less ambitious plans for the future? These are all questions that

should be put to the utilities and they should have well-documented, well-reasoned answers to help inform the Commission's decision and ultimately enable it to conclude that the plans are suitable to meet Floridian families' and businesses' needs.

Sierra Club urges the Commission to defer approval of any more gas plants until the utilities do just that, and we especially urge the investigation of in-state energy resources like solar and energy efficiency.

So in conclusion, there's an opportunity here to correct these flaws in Florida's resource planning and to better identify the most cost-effective resource options going forward that take into account the various costs and risks that we've discussed here today and in previous years.

And Sierra Club is certainly not alone in making this recommendation and focusing on resource planning. We point to the fact that the Florida Energy Office applied this year to the U.S. Department of Energy for funds to assist with improvements to power sector planning in Florida, especially with a focus on boosting energy efficiency and stakeholder engagement.

So on behalf of the Sierra Club, thank you, Commissioners, for this opportunity to participate in

the workshop, and I look forward to your questions.

CHAIRMAN GRAHAM: Thank you, Ms. Csank.

Commissioners, any questions of the Sierra Club or Ms. Csank?

Okay. Is there anybody else here that came to speak for public comment during this workshop?

Okay. Seeing none, any final comments from Commissioners or final questions of either of the two speakers?

I do thank you both very much for your presentation and the information you gave us. And that all being said, we are adjourned. Thank you very much.

(Proceeding adjourned at 2:39 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 18th day of August, 2014.

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