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		COMMISSION CLERK	SEP 17 Ph 1
PROCEEDINGS:	WORKSHOP		53
COMMISSIONERS PARTICIPATING:	CHAIRMAN RONALD A. BRISÉ COMMISSIONER LISA POLAK EDGAR COMMISSIONER ART GRAHAM COMMISSIONER EDUARDO E. BALBIS		
	COMMISSIONER JULIE I. BROWN		
DATE:	Monday, August 13, 2012		
TIME:	Commenced at 9:30 a.m. Concluded at 10:32 a.m.		
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida		
REPORTED BY:	JANE FAUROT, RPR Official FPSC Reporter (850) 413-6732		
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CHAIRMAN BRISÉ: All right. We are going to go ahead and get started. Today is Monday, August 13th. It's about 9:33. Welcome to the Public Service Commission's workshop on Florida's Electric Utilities Ten-Year Site Plans. At this time, Counsel, could you please read the notice.

**MR. MURPHY:** Yes, sir. We're here pursuant to notice for a Commission workshop regarding the ten-year site plans of electric utilities.

CHAIRMAN BRISÉ: All right. Thank you.

The Florida Reliability Coordinating Council is here to summarize its 2012 Regional Load and Resource Plan. Following the presentations, Commissioners and our staff may ask questions on topics covered in the presentation as well as any subjects in the ten-year site plans or issues which affect the reliability of the electric systems in Florida.

19 There will be an opportunity for comments from 20 other interested groups or persons. It is my 21 understanding that the Sierra Club is represented here 22 today by Earth Justice and will make a presentation a 23 little bit later on.

Thank you. And at this time I will turn the workshop over to staff.

**MR. ELLIS:** Good morning, Commissioners. Phillip Ellis with Commission Staff.

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We'll be starting the presentations today with Mr. Gillette, President of Tampa Electric Company, who will introduce the speakers from the FRCC. Please feel free to ask questions at any time during the presentation. Staff may also ask questions during the presentations.

Welcome, Mr. Gillette.

MR. GILLETTE: Thank you, Commissioners. It is my pleasure to appear before you here today. I'm here today representing the Board of Directors of the Florida Reliability Coordinating Council, and I have been chairing this group since February of last year.

The board has 18 members from six different sectors, including non-IOU utility wholesale power providers, municipal and cooperative load serving entities, generating load serving entities, investor-owned utilities, suppliers, and a general sector. The FRCC is one of eight of the NERC Regions in North America.

In March, Sarah Rogers, who had done a great job at the FRCC serving as CEO and president, left the FRCC to pursue other interests. In May, after a nationwide search, Stacy Dochoda, who is to my right

here, started as the new president and CEO of the FRCC, and she is responsible for both the regional entity and the member services division, as well as the Florida Coordinating Group.

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Most recently, Stacy was the general manager of the regional entity for the Southwest Power Pool based in Little Rock, Arkansas. There she reported to her own board, and was very involved in all matters of policy before NERC and FERC on behalf of the SPP Region.

Stacy has 25 years of experience in the electric utility industry. She served for many years primarily in the regulatory and legislative areas for Houston Light and Power and then for Reliant Energy, as the Vice-President of Regulatory Affairs.

Stacy has a Bachelor's degree in Industrial Engineering from the University of Houston and an MBA also from the University of Houston with a specialization in accounting. She is a registered certified public accountant in the State of Texas.

Commissioners, the board of the FRCC is very pleased to have Stacy as our new leader of the FRCC, and it is now my pleasure to present to you Stacy Dochoda along with her colleagues who will be presenting this morning.

Stacy.

MS. DOCHODA: Good morning, Commissioners. As Gordon said, my name is Stacy Dochoda. I thought I would give you a little help with my last name. The C in my last name is completely silent, just for pronunciation.

I am very pleased to be here this morning. Our presentation will provide an overview of the results that our company, the Florida Reliability Coordinating Council, has prepared based on the ten-year site plans from all the utilities in Florida.

For our agenda, I'll provide the executive summary summarizing the results of the work that we have performed, and then really the bulk of the presentation will be provided by John Odom, who is the FRCC Vice President of Planning and Operations. John will cover the details of the FRCC load and resource plan. He will also address several issues related to fuel reliability in Florida, and then he will close up with a discussion of transmission planning for the state.

The purpose of the Florida Reliability Coordinating Council is to promote and enhance the reliability and adequacy of the bulk electricity supply in Florida now and into the future, and this presentation and the work that underlies it, is one of the ways that FRCC achieves this mission.

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To begin with our executive summary, first, I'd start by talking about our planned reserve margin. The planned reserve margin is a measure of the amount of generating capacity that we have beyond the forecasted load. For the horizon that we have looked at, the ten-year horizon, we expect that the planned reserve margin will exceed 20 percent for all peak periods, both summer periods and winter periods, over those next ten years.

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For demand-side management, where demand-side management includes load management and interruptible load, we expect that to reduce load by a relatively constant 7 percent throughout the ten-year horizon. On energy efficiency and energy conservation, we expect that to reduce load by an additional 4 percent between now and 2021, which represents approximately 1200 megawatts.

Renewables are expected to supply approximately 3100 gigawatt hours of the total energy served by 2021, with the largest source of those coming from municipal solid waste and biomass.

And then turning to the impact of pending and proposed EPA regulations, based on the information that we have today, we looked at this from the short-term and the long-term. In the short-term, once utilities have

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determined their plans for compliance with these regulations, what we will want to look at is in the aggregate, whether there are any issues that we would identify related to scheduling unit outages to perform the required retrofits and other modifications. In the long-term, based on the data that we have today, we do not expect any significant reliability impact in the state.

Moving on to fuel and fuel transportation. I'd note that our information indicates that our energy production in the state from natural gas is expected to remain near where it is today, approximately 60 percent, between now and 2021.

In the near term, FRCC does not anticipate that we have any issues that would affect our ability to serve load due to fuel transportation. And then finally on transmission planning, the planned transmission system within the FRCC region is expected to be adequate and reliable.

Now I'll turn the bulk of the presentation with the details over to John Odom. John is our Vice-President of Planning and Operations for the FRCC.

**MR. ODOM:** Good morning, Mr. Chairman, Commissioners, staff.

As Ms. Dochoda said, I'm going to provide some

specifics that led FRCC to the conclusions that were outlined in her presentation, but I want to begin with that each year FRCC compiles and reports on the load and resource plans based on the ten-year site plans that the utilities have provided us.

The first area that I'm going to cover is the load forecast. Of the factors that are considered when completing a load forecast, FRCC has a mix of positives and negatives during this time period. First, Florida's actual unemployment continues to decline. The population continues to pick up some momentum. However, the Florida production levels were lower than expected, and the new projections show a slower recovery than projected.

In 2010, extreme weather, cold winter and hotter than usual summer, masked the continued downward trend of energy consumption, and it has continued into 2011. The forecasted energy sales in summer and winter peaks are lower in 2012 than they were projected to be in the 2011 Ten-Year Site Plan.

This is a graph that shows the summer peak demand. The red line is the newest forecast. As you notice, it has got a lower starting point, and it has a slightly lower growth rate throughout the study period.

The winter is very similar, again with a lower

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starting point and a lower rate. At the end of the ten-year period it is expected about 2,000 megawatts lowered demand forecast than last year's forecast.

This chart is a chart that shows the compounded average annual growth rate for the FRCC region since 1991. In the mid-'90s, the growth rate was less than 2 percent per year compounded, and in 2005, it peaked to about 2-1/2, and as you can see from the last three years, it has been less than 1-1/2 percent per year for both the summer and the winter.

This is a chart of the summer peak demands. The black line is the actual summer demand and the green line is the projections that have been compiled. For reference, the dashed line is a straight line projection based off the actual demand. And you can see that the green does continue to show a lower growth rate than our historical average.

So now I will turn to the generation or 18 capacity side. This chart is quite colorful. It shows 19 the total FRCC resources. The blue on the bottom of the 20 chart is our existing capacity. The green, light green 21 22 are the additions that are planned by the utilities throughout the ten-year period. The purple on top of 23 that is the purchases planned from independent power 24 25 producers and non-utility sources. And then the top

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two, the light blue and the orange are resources that are outside the FRCC region.

This is one of the first of my more complicated graphs, and it shows the impact that load management and energy conservation and efficiency has on the forecast. The bottom line on this graph, the solid red line shows the forecast that has been compiled that was provided by the utilities.

The next line-up, the long dashed line is what the forecast would be if there were no interruptible loads or load management, demand-side management. So that graph is considerably higher, or that line is considerably higher on the graph, and that's to demonstrate what effect those two components have on the load forecast.

And finally, the top line, the small dashed lines, that is the impact of the planned energy conservation and energy efficiency plans that the utilities have projected. And, again, that just shows that the demand would be even higher. We expect that the solid red line is the one that will be met, because we don't have any reason to believe that those things aren't going to happen, but we wanted to make sure that we pointed out how much of our projection is based on these components.

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As Ms. Dochoda said, you know, we are looking at the reserve margins for the utilities. On this graph we have got the summer in the light green and the winter in the blue. And as you can see throughout the entire study period, both the summer and the winter are well above 15 percent in all areas; they are more than 20 percent.

This chart again highlights what happens if the demand-side management and interruptible loads are not counted in the projections, if for some reason those programs diminished or went away totally in this chart. And as you can see, in the summer of 2020 and 2021 they drop below 15 percent for the summer periods.

And finally, this is a chart -- the red line is the FRCC composite, and we call it the generation only reserve. So if for some reason there was no load management or interruptible loads or the energy conservation and energy efficiency did not materialize, those savings or reductions in load did not materialize, this is what the chart would look like.

And so by 2021 the reserve margin from just generation on the ground would be below 10 percent. For reference, we added the FPL line as the largest utility. Theirs would be down to almost 5 percent.

The takeaway here is while we don't expect

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those programs to go away or to be unsuccessful, we wanted to see what the numbers would look like without them. And so the FRCC will continue to keep their eye on what happens with those programs, with the load management and interruptible, as well as energy conservation and energy efficiency, to ensure that those programs remain successful and be able to report back annually to you as to the impact of those.

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The next graph shows how FRCC is doing as it relates to the rest of the country for the dispatchable demand-side management, or load management. At 7 percent, you can see that there is two parts of the country, the MISO, the Midwest ISO, and PJM, both of these are organized markets. They are higher than 7 percent, but the amount of load management that Florida has is higher than the rest of the country except for those two areas that have markets. I should say organized markets.

So, finally, this is the conclusion. For the ten-year period, the region definitely meets the 15 percent FRCC criteria, and the planned reserve margins exceed 20 percent for all peak periods throughout the ten-year plan.

The next area I want talk about is the fuel diversity. We have two charts that I wanted to discuss.

The first one is energy, the amount of energy that is produced from each of the types of fuels. The key points here is that gas this year is expected to be 62 percent of the energy produced from gas with 59 percent in 2021. The nuclear percentage is expected to go up to 14 percent with the planned uprates by 2021.

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The next chart with fuel diversity shows the megawatts of resources that we have available. As you can see from this chart, oil makes up a much higher percentage, meaning that it runs during the peak periods and does not run as much. And the main point here is that the gas remains fairly constant throughout the ten-year period as the largest slice of the pie at approximately 60 percent.

I want talk for a couple of minutes about our renewable resource capacity in FRCC. This chart shows the components that make up the 1421 megawatts of renewable resources. The largest components are biomass at 32 percent and municipal solid waste at 33 percent, with solar, hydro, and heat recovery being smaller percentages.

Next we'll turn to the forecast for renewables. This chart has the planned renewable projects, the biomass or wood products at 334 megawatts, 70 additional megawatts of municipal solid waste, solar

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PV at 512 megawatts; other solar projects, such as water heaters and parabolic mirrors, at 41 percent. And at this time, we don't have any planned wind additions in the study period. However, FPL is pursuing local approval for a 13.8-megawatt wind project in St. Lucie County.

This graph shows the impact that conservation and energy efficiency has had on the load within FRCC. It's a little bit complicated, or the graph is a little bit hard to read, so I'll try to make it a little clearer as to what each one of the lines is. The amount of energy that has been saved and is projected is on the left axis, or the green line, and the demand in megawatts that have been reduced by conservation is the blue line on the right-hand side.

So the projection for the next ten years is that there will be approximately 1400 megawatts of future avoided generation in the FRCC region and about 2500 gigawatt hours of energy throughout the ten-year period, based on the conservation measures that the utilities are undertaking.

This slide shows our existing nuclear capacity and the planned uprates through the ten-year period. We see uprates at St. Lucie, which the St. Lucie 1 has been completed, and then the second one planned this year for

St. Lucie, as well as two uprates at Turkey Point, and the planned uprate at Crystal River 3 for 2014.

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This graph shows the actual energy production from natural gas as well as a forecast. As you can see from 2000, the percentage has continued to increase. And the main point that this graph shows that between last years ten-year site plan and this year's the amount of natural gas or energy that is produced from natural gas has increased significantly for 2012.

And the projection is that throughout the ten-year period that it is going to be essentially the same as it was before, a little bit higher, but essentially the projections show that we'll be burning approximately the same amount of natural gas that we thought we would be doing last year or producing energy at the same amount.

As you know, there are many federal environmental initiatives going on. The Florida utilities are following at least seven major federal rules and regulations. FRCC's role in this area is to monitor the potential reliability impacts that any of these changes could have on the Florida electric system.

In the short run, the utilities and FRCC will identify any issues that may arise from the scheduling of unit outages to make modifications and retrofits. So

the utilities will be responsible for developing their schedule and FRCC will look at those schedules for any changes that may be needed and make sure that the different utilities will still work with the existing transmission system in place to make sure that the grid reliability for Florida or for FRCC remains reliable.

Over the long-term, we are not expecting any significant long-term reliability impacts, given that the utilities will have time to work through any issues that may be caused by the regulations.

So our primary role is to make sure that as plants do have to come off-line to meet -- for modifications and retrofits to meet any future regulations that the transmission system is capable of delivering the generation that it remains on-line to the load. And so we are going to work with the utilities to make sure that the FRCC transmission grid is able to do that. So in conclusion, our resource adequacy review indicates that there will be adequate resources over the ten-year period to meet the forecasted load.

I want to talk a little bit more about FRCC fuel reliability. FRCC has a fuel reliability working group, the FRWG, that's made up of member representatives. This group reviews the interdependencies of fuel availability and electric

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reliability. And also, FRCC coordinates regional responses to fuel issues and other related emergencies that may impact transmission and resource reliability.

One major area of focus for FRCC in the fuel reliability area is the natural gas supply and transportation reliability. Natural gas supplies for FRCC continue to grow. We continue to review and assess the current fuel supply infrastructure to determine potential impacts on generating capacity. We work closely with the gas pipelines and coordinate operations between the utilities and the pipeline operators during any fuel emergencies. Our studies have indicated that fuel oil backup is one of the keys to maintaining system reliability for catastrophic failures that may impact the deliverability of gas supplies.

To help FRCC and our utilities manage their generation fleet and their fuel supplies during emergencies or other periods of concern, we have the following three tools and plans. We have the generating capacity shortage plan. We have the FRCC hurricane manual to ensure communications, and then we have the communications protocols which includes the utilities and the gas transportation

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providers. With these tools and plans, the generator operators and the pipeline operators can have effective communication to deal with any deliverability issues that may come up. So we're got these systems in place to try to make sure that the gas pipeline operators understand the issues that may impact generation resources within FRCC's region.

As you saw earlier, about 60 percent of FRCC's energy production is from natural gas, and that's the area that we have been focused on recently to try make sure that we understand any potential impacts that that may have on the FRCC capacity. So in the near term, FRCC is not anticipating any fuel transportation issues that will cause any reliability impacts. In the longer term, because of this 60 percent reliance on natural gas, the FRCC utilities and FRCC will continue to work on improving communications and coordination with the pipeline operators. They will continue to assess the gas infrastructure capabilities to make sure that there is enough pipeline capability. We will continue to evaluate the interdependencies between gas and electric generation. And finally, we'll evaluate the diversity of the gas pipeline

interconnects.

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The last portion of my presentation is on transmission planning. Our transmission planning process promotes the reliability of the transmission system through coordination of our planning activities. We assess the transmission adequacy and ensure generation deliverability to make sure that, as I said before, that the resources that are planned to be operated can all deliver to the load. And this presentation is focused on the ten-year horizon, but FRCC also has the operations area where we're looking at the next season as well as next week and tomorrow.

And then, finally, we facilitate coordinated planning to develop a robust transmission network. One major item that we are continuing to follow is FERC Order 1000. This FERC order places an obligation on the FERC jurisdictional entities to expand on Order 890 in the areas of regional and interregional planning and cost allocation. The FERC jurisdictional entities are developing regional planning and cost allocation provisions. They have had many stakeholder meetings. Their next stakeholder meeting is scheduled for September 20th, and they have a

compliance filing due to the Federal Energy Regulatory Commission by October 11th of this year on the regional planning and cost allocation portion. They also have to address interregional transmission coordination procedures and address cost allocation, and that compliance filing is due April 11th of next year.

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Next I'd like to spend a couple of minutes talking about how we coordinate with other parts of the eastern interconnection, the whole eastern seaboard as one interconnected grid. FRCC and our utilities are continuing to coordinate with the rest of the utilities within this eastern interconnection. We coordinate models across the entire interconnection. We have a set of cases that we build -- models that we build of the electric system for the entire eastern interconnection. And those models include the proposed expansion plans, and then we and the rest of the regions in the eastern interconnection use those models as a basis for their reliability assessments.

Another major project being undertaken in the eastern interconnection is the Eastern Interconnection Planning Collaborative. This is quite a major undertaking where a group of utilities

have gotten together to evaluate what the future may look like for the entire eastern interconnection in the long run. Each individual utility and each individual region are looking at assessing the reliability through a ten-year period, but this group was put together to evaluate what could the grid look like if there were major policy changes, if the future looked different, much different than what we currently think it's going to look like today.

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So they broke their work into two phases. Their first phase, which they have already completed, involved aggregating all the regional transmission plans into a roll-up report for the entire eastern seaboard. They performed interregional analysis. They looked across the different regions trying to identify were there any issues, if you were trying to move large amounts of power across from one part of the region to the other. And also they conducted macroeconomic analysis of eight different potential scenarios of how the world could change based on some federal policy issues, and the economy, and all the other types of things that we have to try to forecast. But this group was looking at some of the areas as

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far as, like, renewable energy portfolio; what if there was a large federal initiative in that area?

Phase II is currently underway, and they expect to be completed next year, early next year. But they have looked at three of the more likely scenarios, and they've looked at the reliability impacts as well as production cost modeling of various alternative transmission options. These options are major transmission facilities that could be constructed. They weren't plans; they weren't to that level. They were options and things that we're trying to evaluate what kind of major projects would we need in the eastern interconnection, but they didn't get down to the level of defining what it would take to actually build those or develop any concrete plans for those projects.

So finally, to summarize once again what Ms. Dochoda said this morning, our reserve margin exceeds 20 percent for the peak periods. We'll continue to monitor the pending and proposed EPA regulations to ensure grid reliability. We don't anticipate fuel transportation issues impacting reliability. Our natural gas production remains about 20 percent, and our planned transmission system within the FRCC region is expected to be

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adequate and reliable.

And that ends my prepared remarks.

**CHAIRMAN BRISÉ:** Thank you, Mr. Odom. At this time, I don't know if we have any questions here from the Commission?

Commissioner Edgar.

**COMMISSIONER EDGAR:** Thank you, Mr. Chairman. And thank you for your presentation. A lot of really, really good information and very succinct and concise.

I did have one question regarding the comments and the points in the presentation on the pending and proposed EPA regulations you pointed out, which is on Page 4 and Page 26. You pointed out that long-term for Florida no significant reliability impacts are projected, which is consistent with, of course, with information that we have had presented to us before.

But I did have one question about the short-term. I recognize, as you have said, that the FRCC role is to monitor potential reliability impacts and identify issues, as you say, if any. So my first question is what are you using as short-term? I'm thinking maybe one to five years, but I would like you to tell me if I'm on point there. And then in addition to what is defined as short-term, are there any reliability impacts in the short-term that you all have

taken a look at, reviewed, analyzed, and in addition to looking at scheduled outages, does that also include the scheduling of potential construction issues, workforce issues with the retrofits themselves?

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MR. ODOM: Yes, Commissioner Edgar, you did get the right definition of short-term is in the one to five-year time period. At this time we have not had any issues that have been identified. The utilities are working towards developing schedules and looking at what they may need to do, but at this point in time we haven't identified any reliability issues associated with that.

And then to your third point about the scheduling of resource and things, those responsibilities are on the individual utilities to schedule their resources, and then our role will be as those issues are initially defined, we will evaluate the reliability of the grid for that time period, and also we will continue to work with the utilities on a moving-forward basis to say is this still on schedule, do you expect any changes. So that's part of our operational time period that we need to look at.

**COMMISSIONER EDGAR:** And with that interaction with the utilities, can you give me an idea of is that back and forth kind of discussion and sharing of

information on a once a year, once every six months, once a month, as far as those sorts of potential impacts on an updated basis?

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MR. ODOM: At FRCC we have an operations planning coordinator position where we actually look at the next seven days, the next month, and seasonal assessments. So it's pretty much going to be a regular part of our business as we move forward through these next few years.

COMMISSIONER EDGAR: Just to change subjects briefly, and thank you for your answers. Again, lots of information, but I think there are some really important points that I want to make sure are highlighted. One of which is the chart that you gave us on Page 17 that talks about the demand-side management percentages during the peak periods, and the point you made about the FRCC region, you know, a large portion of one state being right there in keeping with those large regional entities as far as the use of DSM, I think, is really important and highlights the good work that this state has done. And then also the point about the reserve margin exceeding 20 percent for peak periods for over the next ten years, I, of course, want to give credit to everybody, because there was a lot of discussion about sometimes some of the gaps and ambiguities in energy

policy, but that point right there kind of says it all. So thank you for your presentation.

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CHAIRMAN BRISÉ: Commissioner Balbis. COMMISSIONER BALBIS: Thank you, Mr. Chairman.

And thank you for your presentation. Ι thought it was very well put together. And I just wanted to follow up on a couple of comments. And focusing on the reserve margin -- and I appreciate, I think you added additional slides from last year that really point out or at least responded to some of the discussions we had last year, and that is -- the reserve margin, when you look at Slide 14, it kinds of jumps out that maybe we do have maybe excess capacity. But I appreciate the next slide which really takes out the load management and interruptible load, because a large portion of those programs are voluntary. And at any time these customers can get off of that program, and then we're back to the Slide 15 where it's a little more concerning.

So I appreciate that information. I think it's important to point out, because, again, the previous slide shows, you know, perhaps an over capacity, but then when you look a little deeper into it, it shows the true issue we are facing. So I just wanted to thank you for adding that information.

And then to go back to the EPA regulations, did you take into account some of the still outstanding questions that are out there about the implementation of these rules? For example, the cooling water intake structure rule where, you know, we had a presentation from the utilities that if they had to go to a cooling tower, you know, what the cost effects would be, what the -- you know, outage impacts. Was that taken into consideration for the short and the long-term impacts?

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MR. ODOM: Commissioner, FRCC tries to remain focused on the reliability. And until the utilities determine what their plans are and how they are going to implement those plans, that's when we get involved. So at these early stages the utilities are responsible for trying to determine what the impacts of those are, but at this point we haven't seen anything that makes us believe that there is going to be reliability impacts associated with that.

COMMISSIONER BALBIS: Okay. And so I assume then, as we are still in a wait-and-see period, if things become clearer then the utilities would implement their plans and then coordinate with the FRCC to look at any potential impacts?

MR. ODOM: Yes, Commissioner, they would. Before they implement their plans, they will share those

plans with us, and then we will look at their plans and 1 make sure that in aggregate that the FRCC remains 2 reliable during all those periods. 3 COMMISSIONER BALBIS: Okay. Thank you. 4 That's all I had. 5 CHAIRMAN BRISÉ: Thank you. Any further 6 7 questions from Commissioners? Well, Mr. Odom and Ms. Dochoda, thank you for 8 your presentations this morning. 9 At this time we will hear from the Sierra 10 Club. 11 MS. COE: Good morning, Mr. Chairman, 12 Commissioners, and staff. My name is Alisa Coe. 13 I'm an attorney with EarthJustice, and I represent the Sierra 14 Club. 15 I'm here today to urge you to consider coal 16 retirements in your planning process as it goes forward. 17 There are several environmental regulations, as you have 18 heard, that are moving down the track within the next 19 ten years, and that they will have effects on the 20 economic viability of several plants. And we think the 21 22 time to start planning for that is right now and through this process. 23 I'm going try to this. All right. So in our 24

first slide you can see that coal capacity is retiring

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across the United States, and this is happening for a number of reasons, because of decreasing natural gas costs and renewable costs, but also because of increasing costs to comply with public and health requirements. Some of the coal plants actually have sort of old dirty technology and don't have scrubbers, for instance, for SO2 pollution which has effects on respiratory health. Crystal River and Lansing Smith are two such coal plants that have units like that. And just five minutes of exposure to SO2 can cause respiratory problems. In fact, EPA's scientific advisory board has called the link between SO2 pollution and asthma attacks and respiratory problems the strongest such link it can identify.

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So as we move forward, we think it is imperative to consider the whole picture of what is going on in the regulatory framework in making these decisions. And what you see in our second slide in your book is a quote from an excellent study authored by Ron Binz, a former Colorado PSC chair, and he is urging just this sort of holistic look as part of responsible planning.

The Commission does, in fact, can have the regulatory authority to look at the whole picture and consider factors like retirements, and we believe it has

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the responsibility to do so, as well. You will see in our third slide there some provisions in Florida law.

So what is coming down the pike? You can see from the next slide that there are mercury standards, there is SO2, national ambient air quality standards, regional haze standards, cooling water standards, ash standards, carbon standards, et cetera. We will get into a couple of those in more detail in a moment.

So retrofitting of the old plants really doesn't make sense when you look at it in light of the standards that are coming down our way. So what you're seeing here is the results of some modeling we conducted. It was done by Synapse Energy Economics. The solid black line that runs horizontal represents new gas combined cycle plants -- natural gas combined cycle plants, excuse me, and what this chart is doing is comparing that to what the retrofit costs would be at Crystal River and Lansing Smith.

So three of these regulations that are coming down the pipeline will require additional SO2 controls of at least scrubbers or dry sorbent injection, and those are your red and green boxes. You can see that even if that is all that happens, those retrofits will render the plants noneconomical. If they are required to do more under additional regulations, which is sort

of the control measures in the light box, they diverge even further from those numbers. Even at their current operating costs, they are just marginally competitive.

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So the numbers we use came from EIA and EPA, and this is a comparison of the numbers that Synapse came up with compared against numbers that the companies themselves provided to DEP as part of their regional haze analyses. And you can see that they are consistent. So, for instance, you know, for Crystal River, Progress thinks that the scrubber costs will be a little lower than we came up with, but they think that the baghouse costs will be a little higher, but they are within range. And you don't have to take our word for it that retrofits are not going to make more sense than retirement, you can look at filings from the companies themselves.

So the next slide you see is an excerpt from filings Progress Energy made with Florida DEP where they identified that Crystal River might have to be retired. The next one -- unfortunately, that admission was not made in their ten-year site plan.

This next one is from Gulf's ten-year site plan, which does include discussion of the possibility of retiring Lansing Smith. Unfortunately, then the analysis goes on to assume that coal will remain in

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operation through 2021. And we think more is required.

So what should happen here? What we think is that in the face of these facts, the Commission should look and see, you know, given that retirement is very likely, can we plan now for additional capacity that we need through renewables, through efficiency measures, or through new plants? Let's get the data and let's start analyzing so that when they are ready to take these off-line, we don't have to start at that point. We can get sort of these polluting emissions off-line at probably a more reliable and economic state.

So let's look a little bit more at a couple of these compliance measures. The first one, if you'll flip a couple of slides through, is the mercury and air toxic standard. And EPA has set a threshold of two pounds SO2 per million Btu as sort of that's going to be a facility that needs a scrubber. And you can see from the chart provided that Crystal River and Lansing Smith are in that range. Even if they don't have to do scrubbers, but had to do sort of the less protective dry sorbent injection, as we saw before from the chart, it is still not economical.

Another one coming through is the SO2 NAAQS standard, and this is going to require -- the specific plans on this are going to be required by 2013, and we

are probably going to see implementation around 2015. So we had an engineering firm do some modeling of whether or not Crystal River and Lansing Smith would be in compliance with the new standard, and we modeled both their permitted amounts and also what their maximum emissions were from 2011. In both circumstances they were not in compliance. The charts you are seeing here are from their permitted amounts, and everything in color is above the NAAQS standard. In fact, some parts of -- it's sort of the purplish color there for Crystal River were about 460 percent above what the NAAQS standard will be. On Lansing Smith, the sort of purplish areas were more in the range of 400 percent above those safe levels. And even as you move out on the Lansing Smith diagram to sort of over downtown Panama City, you are still seeing levels above those standards. So it's clear they're going to need additional measures under this one.

And, finally, under the regional haze rule, which is meant to protect wilderness areas and national parks, you can see the picture there. You're probably familiar with it, St. Marks National Wildlife Refuge. One of the areas protected. Florida has to start cleaning up its haze problem between 2013 and 2018, and they have actually made a submittal to EPA that is

before the agency now. Progress has told DEP that it will consider shutting down Units 1 and 2 at Crystal River as part of this, and Gulf Power has said that they will be implementing dry sorbent injection at Lansing Smith, and those are part of draft permits right now before DEP.

So in conclusion, we think that including these analyses now at this time point, starting to plan for this will give a smart, cost-effective, reliable energy future to Florida. And I appreciate your time.

Do you have any questions?

CHAIRMAN BRISÉ: Thank you very much, Ms. Coe. Are there any questions?

Commissioner Edgar.

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**COMMISSIONER EDGAR:** Thank you, Mr. Chairman. I love planning.

Ms. Coe, thank you for your presentation. I am always particularly pleased when environmental organizations take an interest in the work that we do on our statutory issues, so thank you for your participation today and going forward.

I also have to comment I could not agree more with the slogan or catch line here for EarthJustice which says because the Earth needs a good lawyer. I couldn't agree more.

My question is with the analysis that the organizations you represent have done, have you looked at what the impact on fuel diversity in the Florida fuel portfolio would be with coal retirements as you are recommending? And, if so, how would you recommend that the state make up that generation capacity?

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MS. COE: I don't think that we have gone through that analysis, but I think that kind of gets to the point of why I'm here. It's not just that I'm arguing coal should be retired. I think the economics mean it is going to be retired. And if that's true, let's have that discussion right now understanding, well, how are we going to make up the difference? What is this going to look like? I think that should be part of this analysis, because it seems from what the companies are communicating to DEP, that that is the direction they are heading in, and retrofits don't make economic sense.

COMMISSIONER EDGAR: Thank you. CHAIRMAN BRISÉ: Thank you very much. Mr. Murphy, are there any other scheduled speakers at this time? MR. MURPHY: Not to my knowledge. CHAIRMAN BRISÉ: All right.

Ms. Glickman.

MS. GLICKMAN: Good morning, Commissioners. Thank you. I'm Susan Glickman representing Southern Alliance for Clean Energy. And we just wanted to make a brief point that we think in this discussion of the ten-year site plans that it's important that we have a more open and transparent utility planning process. And the statute doesn't necessarily give you all the ability to do that. You obviously have some limitations, so maybe this should engender more of a discussion of the statutory changes that we need. But the Commission could only at this point make recommendations.

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The current process is really disjointed and it only permits an opportunity to glimpse at the utility planning process through intervention in the FEECA proceeding and also in the need determination process. And the result has been, as we have seen today from the slides, excess capacity, and a really weak energy efficiency performance.

The benefits of energy efficiency are many. I think that was, in part, the response to the last question that Commissioner Edgar asked about how are we going to make up that need. I will mention very specifically in just a second. So, as I said, the ten-year site planning process lacks the real critical component of an integrated resource planning process.

Southern Alliance for Clean Energy has participated in resource planning with the Tennessee Valley Authority as well as in oversight dockets in North, Carolina, South Carolina, and Georgia. And with respect to the Tennessee Valley Authority, we found the process to be very effective at engaging a dialogue that resulted in a much improved resource planning process.

The Florida utility process is comprised of three of these disjointed components: The ten-year site plan, which we are talking about today; the Florida Energy Efficiency and Conservation Act, as well; and the determination of need for new power plants. And if we could pull these together and look at this in one planning process it would be much improved.

By contrast, in North Carolina the utility commission has a review planning process and they bring stakeholders to the table to review the IRP plans and present evidence on how to integrate the lowest cost options, which is what we need do here, and that's what reduces the risk to customers.

Unfortunately, we have no IRP process in place that considers both supply-side and demand-side on a level playing field, and we need to look at that in a more robust manner. And then the result ultimately is the required reserve margins by the state IOUs, and then

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the weak energy efficiency. And we saw this in that slide. So I think that's something we need to be looking at. We need to be looking at it in the legislative arena as a real solution to this process so that we can do better and that you all can serve Florida customers better. Thank you. CHAIRMAN BRISÉ: Thank you very much.

Any questions for Ms. Glickman? All right. Seeing none, thank you for your comments today.

All right. Are there any other public comments? Seeing none. We stand adjourned.

(The proceeding concluded at 10:32 a.m.)

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