## 1 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION 2 3 In the Matter of: DOCKET NO. 090451-EM 4 JOINT PETITION TO DETERMINE 5 NEED FOR GAINESVILLE RENEWABLE ENERGY CENTER IN ALACHUA COUNTY, 6 BY GAINESVILLE REGIONAL UTILITIES AND GAINESVILLE RENEWABLE ENERGY 7 CENTER, LLC. 8 9 10 11 12 VOLUME 1 13 Pages 1 through 187 ELECTRONIC VERSIONS OF THIS TRANSCRIPT ARE 14 A CONVENIENCE COPY ONLY AND ARE NOT 15 THE OFFICIAL TRANSCRIPT OF THE HEARING, THE .PDF VERSION INCLUDES PREFILED TESTIMONY. 16 17 PROCEEDINGS: SERVICE and TECHNICAL HEARING 18 COMMISSIONERS PARTICIPATING: COMMISSIONER LISA POLAK EDGAR 19 COMMISSIONER NANCY ARGENZIANO COMMISSIONER NATHAN A. SKOP 20 COMMISSIONER DAVID E. KLEMENT 21 DATE: Wednesday, December 16, 2009 22 TIME: Commenced at 9:30 a.m. 23 REPORTED BY: JANE FAUROT, RPR 24 LINDA BOLES, RPR, CRR Official FPSC Reporters 25

FLORIDA PUBLIC SERVICE COMMISSION

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COMMISSIONER EDGAR: Good morning. If I could ask everybody to gather; we'll get started here. I call this hearing to order, and I ask that our staff read the notice to help us start off.

MR. SAYLER: By notice issued November 13th, 2009, this time and place were set for a hearing conference in Docket Number 090451-EM, the joint petition to determine need for Gainesville Renewable Energy Center in Alachua County by Gainesville Regional Utilities and Gainesville Renewable Energy Center, LLC. The purpose of the hearing is set forth out in the notice.

COMMISSIONER EDGAR: Thank you. And let's take appearances from the attorneys representing the parties to this matter.

MR. WRIGHT: Thank you, Madam Chairman.

Schef Wright and Roy Young of the law firm of Young van Assenderp appearing on behalf of Gainesville Regional Utilities and Gainesville Renewable Energy Center, LLC.

> **COMMISSIONER EDGAR:** Thank you. And staff.

MR. SAYLER: Erik Sayler and Martha Brown appearing on behalf of the Commission.

MS. BRUBAKER: Jennifer Brubaker and Mary Anne

Helton, advisors to the Commission.

COMMISSIONER EDGAR: Thank you.

Mr. Sayler, preliminary matters. And let me just say, I'm sorry, before I ask you to go over that. This is sort of a two-part proceeding. We will go over some preliminary matters, and then we will have the continuation of the public testimony portion of this proceeding, which is a continuation, basically, of the public comment period that we had in Gainesville last week. Then after the public testimony portion we will move into the technical evidentiary portion.

So, Mr. Sayler, anything preliminary to address?

MR. SAYLER: There are a number of stipulated exhibits and staff would recommend that that be taken up after we convene the technical hearing.

COMMISSIONER EDGAR: Okay. Does that work for you, Mr. Wright?

MR. WRIGHT: Yes, Madam Chairman. Thank you.

COMMISSIONER EDGAR: Thank you.

MR. SAYLER: And staff also suggests that any exhibits proffered during the testimony be numbered sequentially following the exhibit list, and staff suggests waiting until the technical portion of the hearing before moving any of those additional exhibits

into the record.

COMMISSIONER EDGAR: Yes, sir.

MR. SAYLER: And, also, to give the utility an opportunity to take a look at any exhibits proffered by witnesses during the public testimony portion before moving those into the record.

**COMMISSIONER EDGAR:** Mr. Wright, have you had the opportunity to look at the exhibits that were marked while we were in Gainesville?

MR. WRIGHT: Madam Chairman, the exhibits from the Gainesville public hearing, yes, we have, and we don't object to their admission.

COMMISSIONER EDGAR: Okay. We will take that up, then. I just wanted to make sure that you had had that opportunity. Okay.

Anything else before we move into the public testimony portion?

MR. SAYLER: Not that I'm aware of.

**COMMISSIONER EDGAR:** Commissioners, any comments before we do that? Okay.

Then I understand that we have some people who have driven over from Gainesville to address us. We appreciate you making the drive.

Just as we did in Gainesville, for those of you who were able to join us then, I will call the names

from the list that we have. Because your testimony will be part of the record of this proceeding, we'll need to swear you in. And so, if you would, stand with me as a group and raise your right hand.

(Witnesses sworn.)

COMMISSIONER EDGAR: If you do have -- for those of you that would like to speak to us, if you do have any documents that you would like to become a part of the record, please share that with us when you come forward. And I'm going to go down the list that I have, and the first name that I have is Tom Bussing.

Mr. Bussing, welcome. I recognize you from when we were in Gainesville last week. If you would have a seat there, and make sure that your microphone is on. And I'm told that it is. Go ahead and proceed and make yourself comfortable.

MR. BUSSING: Testing. I have a loud voice, I
don't want to knock anybody over.

COMMISSIONER EDGAR: Go ahead and have a seat.

MR. BUSSING: Should I bring my exhibits?

COMMISSIONER EDGAR: Oh, yes, please. Do you have multiple copies? Let me ask, can somebody on staff maybe help us and help Mr. Bussing distribute? Just take a moment, that's fine.

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(Pause.)

COMMISSIONER EDGAR: Okay, thank you. 1 Okay. Mr. Bussing, you have passed out and 2 our staff is helping to distribute two documents; one is 3 labeled the ratepayer case, and the second is labeled or 4 titled Natural Gas from Shale Portends Opportunity for 5 Americans, The Economy. Are those the correct 6 7 documents? MR. BUSSING: Yes, Madam Chair, those are 8 9 the --COMMISSIONER EDGAR: Okay. If you will give 10 us just a minute. 11 And, Mr. Sayler, I believe we are at Exhibit 12 13 Number 23. MR. SAYLER: Yes, ma'am. Are you going to do 14 them separately or together as a composite? 15 **COMMISSIONER EDGAR:** Let's do a composite. 16 MR. SAYLER: All right. Composite Exhibit 17 Number 23 from Witness Tom Bussing. A short title would 18 be Ratepayer Case and Natural Gas from Shale. 19 COMMISSIONER EDGAR: It works for me. 20 21 Mr. Wright, are you with us? MR. WRIGHT: Yes, I am, Madam Chairman. 22 COMMISSIONER EDGAR: Thank you. 23 (Composite Exhibit Number 23 marked for 24 25 identification.)

COMMISSIONER EDGAR: Okay. Mr. Bussing, I think we have the documents. Again, thank you for joining us, and we look forward to your comments.

MR. BUSSING: Thank you, Madam Chair.

For the record, my name is Tom Bussing. I'm a former mayor of the City of Gainesville, and I am thoroughly familiar with issues affecting our regional utility. I need about ten or more minutes of your time to share with you my concerns about the application before you.

commissioner EDGAR: Okay, Mr. Bussing, I will ask, because we did have the opportunity for your comments, which are part of the record, that you use your time here this morning to not recover, but to talk about any other information that you would like to share with us.

MS. BUSSING: Yes. Definitely, I will refer, but very briefly, to the testimony I gave in Gainesville. And if it is a convenience to the Chair, two of the other speakers who came with me agree that my remarks incorporate their concerns, and they are willing to cede their time in order to expedite the hearing and allow me to complete my remarks.

COMMISSIONER EDGAR: Well, anyone who has driven all this way to speak to us we are glad to hear

from. So if they would like to speak to us, that is fine. Why don't you go ahead, and just recognizing that I would ask you to spend your time on new information to share with us.

MR. BUSSING: I will.

**COMMISSIONER EDGAR:** Okay.

MR. BUSSING: Thank you.

We, the ratepayers, need to be represented in these proceedings. We know that you are by law committed to make sure that the utility provides safe, affordable, and reliable service. The GRU proposal fails on all three of these criteria. Due to time constraints, I will focus largely on the costs.

This proposed plan is neither affordable nor cost-effective based on GRU's own calculations. The proposal is experimental and costly. GRU does not offer evidence that the proposed service will be affordable. GRU concedes from the beginning this proposed plant would be more costly than even combined cycle natural gas. GRU hopes it will become more cost-effective in time due to energy market changes. The evidence is absent.

GRU's projection of utility power needs is flawed. There is insufficient evidence to justify a need for this power. GRU's future energy use projection

is merely conjecture. It represents a hope that energy use will expand.

They have presented no valid evidence to support that claim. The data revealed that conservation, the most affordable source of power, is advancing in Gainesville. GRU ignored the potential for retrofitting combustion turbines at Deer Haven as combined cycle units. These would reclaim additional power from fuel we already used in the combustion turbine. You should ask in the hearing why doesn't GRU maximize these existing gas units at Deer Haven.

is flawed. Shale gas has drastically altered projections about price and supply of natural gas in this country. Expanding estimates of recoverable supplies, that is the second piece of evidence that I have submitted -- I can expand on this if time allows, but you should be sure to ask in this hearing why has GRU not included this new information on shale gas in their model.

GRU's projection on wood fuel costs is flawed.

GRU claims it has everything covered except the unknown fuel costs. Fuel costs are key to analyzing this proposal and yet that topic is redacted out of the public version of the contract, which for the benefit of

Commissioner Argenziano that was not Gainesville, I did present and they are in the evidence the contract, as the public has seen that these critical areas, eight pages are redacted out. May I inquire as to whether your copies of the contract are similarly redacted?

commissioner edgar: Mr. Sayler, is that document that Mr. Bussing is referring to one of the confidential documents that has been entered into the -- or has been marked for this proceeding?

MR. SAYLER: Yes, it has been marked for this proceeding. It is in staff's stipulated composite exhibit. We also have copies available now. We had planned to pass those out during the technical hearing, but we have them available now if the Commissioners would like to see that confidential purchased power agreement.

COMMISSIONER EDGAR: Okay. Commissioner Skop, do you want that now? We were going to do that as part of the technical portion.

Okay. Commissioner Skop would like to have that information now. So we will take a moment. And, Mr. Bussing, this will not be part of your time. We will take a moment and ask our staff to distribute that. So the short answer to your question is, yes, that information unredacted is available to the Commissioners

and our staff.

MS. BUSSING: All right. Thank you. And that is the reason that I put these few pages into evidence, because this is what the public is allowed to know about fuel procurement and specifications, testing, including all the terms of the potential buy-out by our utility, the public utility, GRU. If they choose to buy this plant all of that information is a big blackout to the public.

Getting back on track, the point is it's the ratepayers who will have to pay for the 100 million megawatts of power that we don't need at an unknown and noncompetitive price for 30 years. The petitioners ignored natural competitive demand for limited feedstock. Wood chip prices will be driven up by demand, including even shipment of wood to Europe.

The public interest cannot be served by secrecy over these critical aspects of the deal between GRU and the contractor. This redaction eliminates the public's ability to grasp critical aspects of the document. This conceals its impact on the cost and availability of power and contractual arrangements that can threaten the future of our utility.

GRU mischaracterizes this proposal as green and sustainable. The scale, 100-megawatts, is too big

for what is subscribed as a waste-wood harvest. The entire sustainable waste-wood presentation is not factual and is misleading. This plant is designed to cause a massive, historic, and continuous tree harvest across the region. Testimony from the service forest industry speaks to the reality of fuel plantations in our future.

In addition, we do not know what will be burned in this plant. With the need to keep moisture content below 40 percent, most existing operations fill in with drier waste. For example, construction and demolition waste to keep the boiler fires going. You should ask in this hearing how do we know what else will be burned in this plant.

This plant will eliminate local control over utility operations. This is readily seen already in the heavy redaction or blackout of the contract itself, eight and a half pages out of 32. This proposal will put local ratepayers, not private investment interests, at risk.

GRU doesn't forecast a need for this capacity before 2023. Furthermore, GRU's plan is to sell 50 percent of the new output on the interchange. Ratepayers know this cannot work when the wood fuel power is more expensive. You should ask in the hearing,

how can GRU sell 50 percent of the plant's output when combined cycle natural gas electricity is more affordable. The plain fact is that GRU needs to cover losses from the outset. They admit this power will not be competitive on the market. GRU is asking the Public Service Commission to endorse a gamble that they, GRU, can find special customers who will pay the premium for a green tag product. You should ask why does GRU plan to sell the green power on the interchange? Why not sell some of the other existing capacity and go green locally? The answer is because it's not a native load project, an investment in our future.

This is a merchant plant. GRU has built a low return on power generation into its billing structure. This was achieved by unbundling GRU rates on paper into separate generation and distribution areas. In reaction to the threat of utility deregulation in the 1990s, GRU unbundled their customer rates, shifting its billing so that transmission and distribution became the major profit center rather than power generation to remain competitive with adjacent outside utilities. Now, even if nonGRU external power was cheaper than GRU's, competitors would have to pay GRU to wheel it into the customers. This allowed GRU to weather the threat of competition.

contracting for this merchant plant as an outside revenue source as they hope to sell the power for a green tag markup on the interchange. It's obviously not profitable to sell it in the local native load which has been discounted in GRU's unbundled rate structure, but it might be lucrative on the tight green energy market. But that requires you to abandon your sworn duty of providing affordable and reliable power. To explain the notable discrepancies, what you are actually considering is a merchant plant. You should ask in this hearing about the impact of the unbundled rate structure on

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Rather than validate this gamble, in order to protect the public you will not approve this siting petition as offered. The business model of this merchant plant is flawed as evidenced by the fuel supply, shale gas, an abundant amount of evidence that GRU is risking more than the ratepayers' costs, it is risking the entire public utility.

revenues of this merchant plant.

This is a very expensive plant. The public owners and ratepayers cannot afford to bail GRU out if the merchant experiment fails for any one of the many reasons, some of which the public are prevented from viewing. It is reasonable to assume that the ratepayers

will have to pay for 100 megawatts of power that are not needed at an unknown price for 30 years. You should ask what happens to the ratepayers if the cost of wood goes up or the cost of natural gas goes down.

The petitioners say this project needs rapid approval in order to qualify for the subsidies and tax credits. GRU says it wants to build now because the market is down, prices are better. Not only is this great rush unseemly, but it shows that the cart has gotten ahead of the horse. Those are issues pertaining to private investor profits not to public interest.

The Gainesville City Commission is betting the future of its public utility on a costly misadventure. Just three years ago, the Gainesville City Commission was planning to build a 450-megawatt coal-fired plant despite public opposition that it was not needed and would be a source of pollution. The City Commission is generally a good institution, but in this case has failed to adequately represent and disclose the actual costs and dangers of this contractual obligation. As can sometimes occur, a major misstep no matter how well intentioned can severely damage the interest of a public utility and its owners, the citizens of Gainesville.

The City Commission has been largely uninvolved in GRU issues and has of late been visibly

intimidated by complex utility issues. As an example, they misunderstood demand-side management, which has publicly resulted in a puzzling but obvious contradiction suggesting that you can expand capacity while asking people to conserve.

To protect the public, the Public Service
Commission must see that the dollar costs of DSM
expenditures are justified only by crossing off an
expensive capital project like the proposed wood
incinerator.

**COMMISSIONER EDGAR:** Mr. Bussing, about how much more do you have with your prepared comments?

MR. BUSSING: I have a half page to complete.

COMMISSIONER EDGAR: All right. Thank you.

MR. BUSSING: The City Commission's approval of this enterprise, this merchant plant, does not comply with the requirements for PSC approval. Our local government, although well intentioned, has failed to scrutinize this project. We must turn to our state Public Service Commission to remedy this unfortunate situation.

GRU's claim of an open and transparent process came to an abrupt end at the contract with Nacogdoches now know as American Renewables. The contract blackout inhibits ratepayers from preparing a case through an

illegal abuse of the trade secret loophole to keep vital information from the public. Pricing operations, forest stewardship, even the terms of a GRU buy-out all are blacked out. Even definitions are blacked out in the public version of this contract.

So, in conclusion, please require that the contract be open for the public to see. Then please remand this proposal for improvements including full disclosure, accuracy in forecasting fuel costs and pricing of alternatives, and a valid assessment of the need for power in our utility system.

Thank you for your time.

COMMISSIONER EDGAR: Thank you, Mr. Bussing.

Commissioners, questions?

Commissioner Skop.

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COMMISSIONER SKOP: Thank you, Madam Chair.

Good morning, Mr. Bussing. I appreciate your analysis. Again, I think you raised several of the concerns that I expressed in terms of trying to get additional information to some of the questions you raised. So I look forward, during the course of the evidentiary proceeding, to addressing some of those issues that you have raised as well as capacity and the use of existing generating resources to get a better understanding of the proposal before us. I do thank you

and appreciate your time in traveling to Tallahassee from Gainesville and also appreciate your thoughtful analysis.

**COMMISSIONER EDGAR:** Commissioner Klement, did you have a question?

**COMMISSIONER KLEMENT:** I do.

**COMMISSIONER EDGAR:** Okay. Commissioner Klement.

COMMISSIONER KLEMENT: Thank you, Mr. Bussing.

I'm not very familiar with forestry because we don't have any trees where I come from in Florida. I understood you to say that -- to imply that if there were -- developed fuel plantations out of this, trees just grown for this, that sounded like it would be a bad thing. Is that true? And if so, why is it?

MS. BUSSING: Well, there's probably more than one answer to your question. It's a very broad question. One point I want to raise is that the justification for this as renewable fuel and being carbon neutral is in some way leaving some biomass on the land. And when you work with forests you understand that there is not a leaf or a twig that is wasted.

We live on a sandbar here. And if there isn't a constant deposit of this organic material to make a soil in which trees can survive -- the trees have been

developed and evolved to create the soil that nourishes and sustains them. If you continue to grow small trees and harvest them as quick as possible, you will never get saw timber, you won't have habitat for wild turkeys and deer. There is a real need that we restore some of the forest that was here when we arrived as a nation in America. And restoring the land and protecting the land is a very important part of our obligation as citizens.

**COMMISSIONER KLEMENT:** Thank you. Another question?

COMMISSIONER EDGAR: Yes, sir.

this morning and last week at the hearing to imply that construction and demolition burning would be bad. Why is that? I thought that would make use of the materials that otherwise goes into a landfill, at least the burnable things.

MS. BUSSING: Yes. You know, I talk to a lot of people, and I often here exactly the opinion you are expressing. People don't want to waste things. They would like to see some good come out of it. I have studied emissions of these incinerator operations, and I can tell you that there is a lot of bad stuff that comes out of a smokestack. They call it clean and green. I could cite work that shows wood lignin in the

incineration process converts to dioxin. It's a precursor to generating dioxin in emissions. These are facts.

As far as C&D, I always tell people have you ever gone by those C&D dumpsters, do you ever get up on your toes and look in and see what's in there? Because it is not just 2X4s, it is full of old roofing, visqueen plastic, soda cans, bottles, and whatever somebody goes by and says, hey, I'll throw my bag of garbage in there. So it's not a well-controlled source.

And when you start adding those plastics and petroleum derivatives to a burning situation, like I say, dioxins and other hazardous air pollutants are the burden that we will carry for generations. They do not biodegrade. They are endocrine disruptors and, yes, even the cleanest burning plant is going to be very bad for public health.

COMMISSIONER KLEMENT: Thank you.

COMMISSIONER EDGAR: Commissioner Argenziano.

COMMISSIONER ARGENZIANO: Thank you.

First, if I can ask staff a question. As to the redaction portion for the public, have we made a determination as to the confidentiality.

MR. SAYLER: No, ma'am, we have not. That confidentiality motion is still pending.

**COMMISSIONER ARGENZIANO:** How long is that process?

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MR. SAYLER: We have a draft that has been circulated, and I have yet to contact the Prehearing Officer to present that draft to him.

reason I make the comment is because it has been brought up, and by statute there are certain things that we are mandated to keep confidential, but we have to make that determination as to whether they really are the issues that we're mandated to adhere to. So that's the reason I asked for that, because at what point -- if we determine that some of the information does not need to be redacted or if it truly is confidential by statute, people deserve an answer to that. So I'd like to kind of figure out when and how we can do that.

And, secondly, I thought we had a presentation -- and, Commissioner Klement, this was before you were here, quite awhile ago on, well, I think it was when we were doing our RPS when the silviculture industry came before us. And I remember as I was chair of agriculture in the senate, that the issue, even when I left the senate was that there probably wasn't too much sustainability in that type of operation because there would be required a lot of land.

Where would the additional wood products come 1 from on this? And, I'm sorry, I only read part of that 2 as far as construction debris, but didn't we have a 3 presentation on sustainability that indicated it really 4 wasn't that sustainable from those who do? I want to 5 get it cleared out now, because I need to --6 COMMISSIONER EDGAR: Commissioner, if I may, 7 let's try it this way and then we can see. And I 8 9 recall, absolutely, in my memory, which is a little 10 foggy, but during our RPS deliberations, in particular, we did have some presentations on that subject. 11 Mr. Wright, my memory is that one, if not 12 more, of the witnesses that we will be hearing from here 13 shortly will speak to those points, but I would like to 14 ask you to respond to that. 15 MR. WRIGHT: That is exactly correct, and that 16 is exactly what I was going to tell the Commissioners. 17 Thank you. 18 COMMISSIONER ARGENZIANO: And one question to 19 Mr. -- is it Bussing? I'm sorry. 20 21 MR. BUSSING: Bussing. COMMISSIONER ARGENZIANO: Bussing, I'm sorry. 22 23 MR. BUSSING: Thank you. COMMISSIONER ARGENZIANO: You had indicated 24

that you didn't think that GRU had complied with the

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PSC's approval for this plant. Could you be specific as to where you believe that is?

MR. BUSSING: You know, I don't even have intervenor status to -- I realize a lot of the docket information is available. My main exposure has been listening to GRU's presentation of their own case. And I understand our utility, and I understand a lot of the forces that have been driving this. I mean, this is really a converted coal plant. Like I say, three years ago they were working on a 450-megawatt coal plant using the existing air pollution permit at Deer Haven. That is the whole driving issue.

mean to cut you off, why I'm asking is because what I have to look at as a Commissioner is what the statutes tell me I have to look at when making a need determination for this type of a contract. And there are things that must be complied with, and I thought you were indicating that you found that there was not compliance, and that's what I was trying to get at. If you found that, now is the time to tell me.

MR. BUSSING: Yes. My main focus is looking at the projections they show a simple line graph with a decline in usage of energy in Gainesville over the last several years, and a trend that we would hope will

continue. It keeps money in the local economy. But then they return to the same linear increase projection of gas prices as if they had a crystal ball. That is not evidence. That is just wishful thinking.

And as far as the -- I don't know the details of how they are pricing or how the contract is priced, because it is all blacked out. But the idea there are large operations in Southern Georgia that are going to be shipping six million tons of wood pellets to Munich, Germany. There are new wood burning plants appearing before you and probably will be more. And rather than be, say, a 20-megawatt understandable located at a saw mill using the waste wood where it is, the idea of trucking in a million tons of wood per year and claiming that it is going to be cost competitive somewhere down the line.

GRU admits that when they put this on they project increasing rates for the customers. That's already in their presentments. They are going to raise their rates. What they tell us is that somehow in the next few years, the two lines are going to cross and gas is going to get more expensive, and the wood is going to get cheaper or something. But I believe that the wood potentially could get a lot more expensive and there is a lot of competition.

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They are ignoring, I believe, the way a market operates. They do not have fixed contracts for this The places in Germany -- in Georgia that are shipping to my Munich, Germany, I believe, have long-term contracts with large scale landowners, and they have -- they own the wood on the stump. So their price projections for the wood are just -- there's no evidence on the record. And that's what I mean, there is no evidence for their position. It is all wishful thinking.

And the shale gas is an important part of that, when I gave out that handout, because they have increased from what they said we only had about ten years of natural gas supply in the ground in America. It's going to be a crisis. Apparently now those projections are up to 90 years of natural gas, and there is more natural gas in storage right now today than there ever has been in the United States of America.

So, I don't have a crystal ball. I can't quarantee what we will see in the future, but the people that I talked to and that know what's going on in the energy field believe that natural gas is likely to be very plentiful for decades at least.

> COMMISSIONER EDGAR: Thank you, Mr. Bussing. Commissioners, anything further?

Commissioner Skop.

COMMISSIONER SKOP: Thank you, Madam Chair.

And thank you, again, Doctor Bussing. Just two follow-ups to Commissioner Argenziano's question with respect to the pending confidentiality of the redacted data. Again, we have our own internal processes, as staff and Commissioner Argenziano alluded to, and we will handle that internally. Also, again, you know, that's our process, but it is equally open to both the city and the petitioner to self disclose that information if they want complete transparency so the public and members of the community can make their own informed decisions.

So, again, there may be legitimate trade secret or business proprietary reasons for why they are choosing the treatment that they have done; but, again, nothing prevents them from opening that up, should they wish to do so. And I have taken a look at the unredacted version and looked at the parts that, the pages that you have mentioned already. So, thank you.

MR. BUSSING: Well, I thank you because -- and the Public Service Commission. This is the first venue that I have been to where somebody is actually going to look at it. Because in the City of Gainesville, you know, they have kind of circled the wagons and driven --

when this plant was voted by the City Commission in the 1 negotiation process, every citizen at that meeting but 2 one, something like 16 speakers came up one after 3 another and said don't do it, don't do it, don't do it. 4 What the stonewalling by City Hall has done is 5 basically drive most of us into the woods. Some of us 6 are -- you know, I feel an obligation as a former 7 elected official. I have some experience with the 8 utility issues. I have a doctorate in a scientific 9 field. I'm not intimidated by data and analysis. So I 10 felt an obligation to come up to Tallahassee, and I 11 thank you, again, for giving us the time to bring our 12 13 concerns to you. COMMISSIONER EDGAR: Thank you. 14 Mr. Wright, any questions? 15 MR. WRIGHT: No, Madam Chairman. Thank you. 16 COMMISSIONER EDGAR: Thank you. 17 Thank you for coming. Thank you for your 18 19 comments. The next person that I have on our list is 20 Karen Orr. Ms. Orr, would you like to speak? 21 MS. ORR: Tom Bussing covered my concerns. 22 COMMISSIONER EDGAR: Okay. Thank you. 23 December McSherry. 24

25

MS. McSHERRY: Doctor Bussing covered my

concerns, also.

COMMISSIONER EDGAR: Thank you very much. Thank you for coming.

Dian Deevey. And, Ms. Deevey, I also recall your talking to us when we were in Gainesville, so thank you for making the drive, as well. And similarly, I would ask that you use your time to cover information that you did not share with us in Gainesville last week. Do you have any additional documents to provide?

MS. DEEVEY: No, I do not.

**COMMISSIONER EDGAR:** Okay. Thank you for coming. Go right ahead.

MS. DEEVEY: Thank you.

Thank you for the opportunity to address you today. I am a customer of GRU. I guess that makes me an interested party.

I'm concerned about several issues relating to the Gainesville Renewable Energy Center, and I have some questions about those issues. The application for certification of need contains forecasts of capacity and energy through 2044. Section 4.6.2 of the application describes how the forecasts were produced and briefly describes the delivery of energy to two wholesale all-requirements customers that GRU now supplies with electricity. They are the City of Alachua and Clay

Electric Cooperative. Both of these customers serve retail customers in locations near or adjacent to Gainesville.

2.4

Section 4.6.2 of the application contains the following statement about these customers' loads:

Quote, "These loads are considered part of the system's native load for facilities planning through the forecast horizon." As far as -- that's the end of the quote. As far as I have been able to determine, the current contracts for these wholesale sales extend only through December 31, 2012, and GRU has no contractual obligation to continue sales beyond that date, although both contracts allow for an automatic one-year extension provided neither party cancels.

As far as I can determine, only three one-year extensions are allowed for the contract with Alachua, but there is no limit as far as I can determine in the contract with Seminole as long as both parties agree.

And if they cancel, they must give one year's notice of doing so.

So my question in connection with this -- I have two -- do these forecasts of capacity and energy needs for the period 2013 through 2044 that are in the application include sales to Alachua and Clay? If so, what proportion of total capacity and energy needs is

attributed to these two wholesale customers? As far as I can determine, the amounts are quite large, comparatively large compared to the retail customer load.

I also have questions about GRU's evaluations of demand-side management programs. As far as I can determine, the utility may be using avoided cost estimates, that is to say the amount of energy they save if a demand-side program is initiated, that the avoided cost estimates are low, and they may cause it to reject programs that are economically feasible and could reduce both capacity and energy needs.

I addressed the Commissioners at the hearing in Gainesville last week about the reliability of wood fuel supply and its cost, and whether all the fuel used will, in fact, be considered carbon neutral, but I will not mention those further. Thank you very much.

COMMISSIONER EDGAR: Any questions for Ms. Deevey?

Commissioner Skop.

COMMISSIONER SKOP: Thank you.

Thank you, Ms. Deevey, for taking the time, again, to drive up from Gainesville to Tallahassee. I appreciate your comments. And, again, I think that you and the others, Doctor Bussing and the others that have

driven up are perfectly welcome to stay and hear the proceedings.

I think during the course of those proceedings you will hear some of the tough questions that you have brought will be asked and hopefully there will be some clarification on some of the points that have been raised.

MS. DEEVEY: Yes, but I don't have intervenor status. Is the public allowed to participate later on?

commissioners skop: No. But I assure you between the Commissioners, all of us, this is an exclusive forum for a determination of need pursuant to statute, and many of the questions that have been raised regarding capacity and most cost-effective option and all of those, all of those statutory provisions are things that the Commission has to consider in rendering that determination. So, again, I think that you are welcome --

MS. DEEVEY: Yes, I know you will.

**COMMISSIONER SKOP:** -- to stay, and I appreciate you taking the time to drive up this morning.

MS. DEEVEY: Thank you. You're very welcome.

COMMISSIONER EDGAR: Thank you very much.

Let me just go ahead and ask is there anybody who did not sign up that wanted to speak to the

Commission as part of the public testimony portion of 1 this proceeding? 2 Seeing none, then that concludes the public 3 testimony portion. We will move to the technical 4 hearing, which I convene now. 5 Mr. Wright, do you need to take a short break 6 to look over exhibits, or do you want to forge ahead? 7 MR. WRIGHT: Madam Chairman, I would just as 8 soon forge ahead if that is convenient for the 9 10 Commission. COMMISSIONER EDGAR: That's fine with me. 11 12 Thank you. 13 MR. WRIGHT: All righty. COMMISSIONER EDGAR: Okay. And I'm seeing 14 15 nods around. 16 Mr. Sayler, preliminary matters. MR. SAYLER: Staff would like to note that 17 18 Witness Kamhoot has been excused from the hearing, and would recommend that at the time when he comes to --19 during the order of his testimony that GRU will move his 20 testimony and exhibits into the record at that time. 21 COMMISSIONER EDGAR: Yes, that is the way we 22 23 will handle that. Thank you. MR. SAYLER: Staff also wants to note that 24 25 there are some stipulated exhibits that we would like to

1 move into the record. The first one being the exhibit 2 list, the Comprehensive Exhibit List, which is Exhibit 1. 3 **COMMISSIONER EDGAR:** Any objection? 4 5 MR. WRIGHT: No objection. COMMISSIONER EDGAR: Hearing no objection, 6 7 Exhibit 1, Comprehensive Exhibit List, is hereby moved 8 into the record. (Exhibit 1 marked for identification and 9 10 admitted into the record.) MR. SAYLER: And at this time staff would like 11 12 to move the public hearing exhibits from Gainesville 13 into the record. They are marked Exhibits 2 through 6. 14 COMMISSIONER EDGAR: Mr. Wright? 15 MR. WRIGHT: No objection, Madam Chairman. 16 COMMISSIONER EDGAR: Commissioners, any 17 comments or questions about that? 18 Seeing none, Exhibits 2 through 6 are entered 19 into the record at this time. 20 (Exhibit Numbers 2 through 6 marked for 21 identification and admitted into the record.) 22 MR. SAYLER: And with apologies for skipping, 23 what about moving in Tom Bussing's Composite Exhibit, 24 which is Exhibit 23, since we are now in the technical 25 portion of the hearing.

COMMISSIONER EDGAR: Mr. Wright. 1 2 MR. WRIGHT: We have no objection to those exhibits, Madam Chairman. 3 COMMISSIONER EDGAR: Exhibit 23 is entered 4 into the record. 5 (Exhibit Number 23 admitted into the record.) 6 MR. SAYLER: Now moving back to the first page 7 of the Comprehensive Exhibit List, staff would like to 8 move in Staff's Stipulated Composite Exhibit, which is 9 identified as Hearing Exhibit Number 7. 10 COMMISSIONER EDGAR: Mr. Wright. 11 MR. WRIGHT: We have stipulated to that, Madam 12 Chairman. No objection. 13 COMMISSIONER EDGAR: Okay. Exhibit 7 is 14 15 entered into the record. (Exhibit Number 7 marked for identification 16 17 and admitted into the record.) MR. SAYLER: And staff has also received 18 stipulations from the utility on two more exhibits, and 19 I have passed them out to the Commissioners. There is a 20 yellow copy and a blue copy. The yellow copy is the 21 22 summary package of GRU's testimony and exhibits. 23 contains information from their application and from interrogatory responses, and that will need to be marked 24 for identification.

25

COMMISSIONER EDGAR: Okay. So, Commissioners, 1 the packet with the yellow sheet titled staff summary 2 package, GRU's testimony and exhibits, will be marked as 3 Exhibit 24. 4 MR. SAYLER: And then the blue one, which is 5 just a chart which is also derived from that summary 6 7 package as Exhibit 25. COMMISSIONER EDGAR: So marked. 8 (Exhibit Numbers 24 and 25 marked for 9 identification.) 10 MR. SAYLER: And for a title, Staff's Rate 11 Impact Chart. And then I believe that the utility also 12 has some exhibits that they will be moving and some 13 stipulated exhibits that they will be moving into the 14 1.5 record. COMMISSIONER EDGAR: Mr. Wright, am I to 16 understand that you have stipulated to Exhibits 24 and 17 25, or would you prefer to take those up during the 18 question portion of the hearing? 19 20 MR. WRIGHT: A couple of things. I am sure that we have. I, unfortunately, do not seem to have a 21 22 copy, or at least not one that I can identify of 24. COMMISSIONER EDGAR: I'll bet we can help you 23 24 with that. 24 was the yellow. 25 MR. WRIGHT: All right. This one I got.

1 Madam Chairman, I was correct, we have seen these. 2 have agreed that we have no objection to them. I just 3 wanted to be sure I saw it. Thank you. 4 COMMISSIONER EDGAR: Absolutely. Lots of 5 paper. 6 Okay. So hearing no objection, we can go 7 ahead and enter Exhibits 24 and 25 in at this time. Mr. Wright? 8 9 MR. WRIGHT: Fine by us, Madam Chairman. 10 Thank you. 11 (Exhibit Numbers 24 and 25 admitted into the 12 record.) 13 COMMISSIONER EDGAR: Mr. Sayler. 14 MR. SAYLER: Staff has no further exhibits at 15 this time. 16 COMMISSIONER EDGAR: Mr. Wright. 17 MR. WRIGHT: Madam Chairman, there are four interrogatory -- this may or may not be the appropriate 18 19 time, but we'll give it a shot. There are four 20 interrogatory responses that were sponsored by -- or 21 averred to by Mr. Bachmeier that we discovered late in 22 the game. We discovered that a few numbers had been 23 incorrectly accounted for. We have corrected those. 24 Unfortunately, it was too late to get them back into the 25 compact disk that the staff prepared their composite

exhibit on.

So we have hard copies of that. We have communicated with the staff and we are all on the same page on that. We could go ahead and move those in since they actually are corrected versions of the interrogatory answers replacing documents that are in the Staff's Composite Exhibit. It might make sense to go ahead and move that exhibit in now.

COMMISSIONER EDGAR: Mr. Sayler.

MR. SAYLER: Staff concurs.

MR. WRIGHT: So that will be 26. And if you wanted you could identify the witness as Mr. Richard Bachmeier.

commissioner EDGAR: Okay. And Mr. Bachmeier is Number 4 on my list of witnesses, just to help me keep track of that. So Witness Bachmeier, and it is corrected interrogatories?

MR. WRIGHT: Corrected Interrogatory
Responses. If you want to know, it is 54, 56, 57, and
60.

COMMISSIONER EDGAR: Okay. We'll mark as Exhibit 26, Corrected Interrogatory Responses 54, 56, 57, and 60 for Witness Bachmeier.

Do we need to distribute those? Thank you.

And, Mr. Wright, do you want to go ahead and enter those

1 at this time?

MR. WRIGHT: Yes, Madam Chairman. Thank you.

COMMISSIONER EDGAR: Okay. So, Mr. Sayler, we will enter Exhibit 26 into the record as it is being distributed.

(Exhibit Number 26 marked for identification and admitted into the record.)

**COMMISSIONER EDGAR:** Mr. Sayler, any other matters?

Mr. Wright.

MR. WRIGHT: Madam Chairman, finally, and we have discussed this with the staff, we have long since filed a document that looks like this, the Need for Power Application. We would ask that it be marked for identification as Exhibit 27. The various component parts of that exhibit are all sponsored by our various witnesses, as is normal in these cases. And I have discussed this with Mr. Sayler, and staff are amenable to stipulating this exhibit in at this time, and if that is satisfactory with the Commissioners, we would so move.

**COMMISSIONER EDGAR:** That seems logical to me. Mr. Sayler.

MR. SAYLER: And staff concurs.

COMMISSIONER EDGAR: And this is the GRU

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1	application. Is there a more formal title?
2	MR. WRIGHT: I would title it GREC need for
3	power application.
4	COMMISSIONER EDGAR: GREC Need for Power
5	Application, which is marked as Exhibit 27. Do you want
6	to take that up after the witnesses?
7	MR. WRIGHT: Since the staff are willing to
8	stipulate to its admission, I would move that it be
9	admitted now.
10	COMMISSIONER EDGAR: Any concerns?
11	Commissioners, any concerns? No.
12	Okay. Then we will go ahead and enter Exhibit
13	Number 27 into the record.
14	(Exhibit Number 27 marked for identification
15	and admitted into the record.)
16	COMMISSIONER EDGAR: Thank you.
17	MR. WRIGHT: Thank you, Madam Chairman.
18	COMMISSIONER EDGAR: Any other exhibits, Mr.
19	Wright?
20	MR. WRIGHT: Not that I'm aware of at this
21	time, Madam Chairman.
22	COMMISSIONER EDGAR: Mr. Sayler.
23	MR. SAYLER: Madam Chairman, it was my
24	understanding that GRU also had a notice of publication
25	for the hearing, prehearing, and the public hearing.

And we had also agreed previously to stipulate to the 1 public hearing PowerPoint presentation that was presented last week, and GRU was going to submit that 3 into the record. 4 COMMISSIONER EDGAR: We did not mark that. 5 MR. SAYLER: That has not been marked and it 6 has not been circulated. And similarly, the City of 7 8 Gainesville's Mayor's Executed Climate Change Agreement, 9 that was also --COMMISSIONER EDGAR: Which was also discussed, 10 11 I recall. Mr. Wright, is that your understanding? Is it 12 your understanding that you are offering those 13 14 documents? MR. WRIGHT: Yes, ma'am. I apologize, I was 15 16 slightly confused about the procedural aspects. But, yes, we would ask that the notice of publication --17 COMMISSIONER EDGAR: Okay. Let's take them 18 one at a time just so I don't get confused. 19 2.0 MR. WRIGHT: Yes, ma'am. COMMISSIONER EDGAR: But if you can pass them 21 22 out as a group. Okay. So we will mark as 28 the notice 23 of publication. 24 MR. WRIGHT: Thank you, Madam Chairman. (Exhibit Number 28 marked for identification.) 25

1	COMMISSIONER EDGAR: The Power-Point
2	presentation 12/09/09 Public Hearing Power-Point
3	Presentation we can mark as 29.
4	Does that work, Mr. Wright?
5	MR. WRIGHT: Yes, ma'am. Thank you.
6	(Exhibit Number 29 marked for identification.)
7	COMMISSIONER EDGAR: The Executed Climate
8	Change Agreement, Exhibit 30.
9	MR. WRIGHT: Yes, ma'am. Thank you.
10	(Exhibit Number 30 marked for identification.)
11	COMMISSIONER EDGAR: Am I forgetting one? Is
12	that it? Mr. Wright, is that all?
13	MR. WRIGHT: I believe so, Madam Chairman.
14	Thank you.
15	COMMISSIONER EDGAR: Okay. I think I have my
16	documents, so at this time we will enter into the record
17	Exhibits 28, 29, and 30. Thank you.
18	MR. WRIGHT: Thank you.
19	(Exhibit Numbers 28 through 30 admitted into
20	the record.)
21	COMMISSIONER EDGAR: Any other matters at this
22	time?
23	MR. SAYLER: Staff will note for the record
24	that the parties have agreed to stipulate Issue 1, which
25	can either be voted upon today or taken up at the in

the post-hearing recommendation, assuming there's no bench decision today.

commissioner EDGAR: Commissioners, Issue 1 has been stipulated by staff and the parties, party. So the question from staff is we can take that up and go ahead and vote on it and dispose of that, or we can wait and have that taken up as part of the written recommendation, if indeed that's the way we go.

Ms. Helton, did you need me?

MS. HELTON: I was just going to suggest that if you decide not to approve the stipulation that it would be appropriate to do that today so that the parties will know whether to brief that issue and staff will know whether to make a recommendation to you.

commissioner EDGAR: Commissioners, any
comments, questions, concerns about proposed stipulated
Issue 1?

Commissioner Skop, take a moment. And I know we all have it in our prehearing order, but for the record, Issue 1 reads as follows: Are Gainesville Regional Utilities and Gainesville Regional Energy Center, LLC, proper applicants within the meaning of Section 403.519, Florida Statutes.

COMMISSIONER SKOP: Madam Chairman, I'm fine with the proposed stipulation.

COMMISSIONER EDGAR: Commissioners, any 1 questions or concerns? Hearing none, is there a motion 2 to adopt the proposed stipulation on Issue 1? 3 COMMISSIONER SKOP: So moved. 4 **COMMISSIONER EDGAR:** Is there a second? COMMISSIONER KLEMENT: Second. 6 7 COMMISSIONER EDGAR: Properly motioned and seconded. All in favor of the motion say aye. 8 9 (Simultaneous vote.) COMMISSIONER EDGAR: All opposed? Issue 1 is 10 11 adopted. Any other matters that we can address at this 12 time? 13 MR. SAYLER: Staff is not aware of any 14 additional matters at this time. 15 COMMISSIONER EDGAR: Mr. Wright, anything 16 17 else? MR. WRIGHT: Not other than that I have a 18 brief opening statement, Madam Chairman. 19 COMMISSIONER EDGAR: And we are looking 20 21 forward to hearing it. Commissioners, any comments before we move 22 into the opening statements and then the presentation of 23 24 witnesses? No. Mr. Wright, you are recognized for your 25

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opening statement.

MR. WRIGHT: Thank you, Madam Chairman. As you all know, I'm Schef Wright, and I have the privilege today, along with my partner Roy Young, of representing Gainesville Regional Utilities, which is the utility arm of the City of Gainesville, and Gainesville Renewable Energy Center, LLC, in this case.

This is a need determination proceeding for the Gainesville Renewable Energy Center project. The project is a 100-megawatt net nominal renewable energy power plant that will be collocated at GRU's existing Deer Haven generating station. The process will utilize bubbling fluidized bed technology to burn/combust clean woody biomass, mostly forest residue, mill residues, and urban wood waste to generate electricity.

Gainesville Regional Utilities will purchase the output of the project pursuant to a 30-year power purchase agreement, and GRU's rights to the output include all of the renewable energy credits, environmental attributes, carbon credits or allowances, and the like that are associated with the renewable energy to be produced by the project.

GRU does anticipate that it will sell 50 percent of the project's output to other utilities for the first ten years of the project's service life,

and testimony I think already has indicated at the public hearing in Gainesville and will indicate that GRU is already in discussions with four potential retail serving offtakers in Florida. As the Commission just approved our stipulation, GRU and GREC are proper applicants for the determination of need here.

The evidence to be presented in this case will show the following: First, as background, that the GREC, Gainesville Renewable Energy Center, project was chosen by unanimous vote of the Gainesville City Commission following a seven-year power supply evaluation process that included 37 public televised sessions including City Commission meetings, workshops, and other forums.

Through this process the Gainesville City

Commission first decided to pursue a woody biomass fuel
generation option, and then conducted a national RFP
process to which GRU received proposals from 11 bidders.

From these, GRU, Gainesville, invited the three highest
ranked proposers to submit binding proposals. Among
those was an entity, then Nacogdoches Power, and,
subsequently, American Renewables, and Gainesville
Renewable Energy Center, LLC, the project
owner-developer entity.

In May of 2008, the City of Gainesville

unanimously directed GRU to negotiate -- or authorized,
I should say, GRU to negotiate a power purchase
agreement with Nacogdoches/American Renewables, GREC,
the company. Following that, and following nearly a
year of negotiations, the Gainesville City Commission in
May of this year unanimously approved the power purchase
agreement negotiated between Gainesville and GREC, the
company.

As you all know, there are essentially six criteria that the Commission must consider in making its decision on petitions for determination of need. None is specifically determinative. None is specifically a sine qua non. I think all must be considered.

The evidence in this case will demonstrate that the proposed GREC project satisfies all of these criteria. It will meet the need for electric system reliability and integrity. Although based on current forecasts, GRU does not need additional capacity to meet minimum reserve margins until approximately 2023. The project will enhance the reliability and integrity of GRU's power supply system, particularly in light of its aging generating fleet.

Regarding the criterion that proposed power plants are to provide adequate electricity at a reasonable cost, the project has and the PAA taken

together have a lower projected levelized cost of electricity than natural gas fired alternatives over the planning horizon. The plant has a guaranteed heat rate, or the contract has a guaranteed heat rate, and 30-year fixed pricing for everything but fuel and chemicals.

It will reduce GRU's reliance on its coal-fired generating plant and will reduce GRU's and its customers' exposure to volatile natural gas prices. With regard to fuel diversity and supply reliability, this will be biomass fuel, native mostly Florida, probably almost all Florida native biomass from North Central Florida generally within a 75-mile radius of the project. This will enable GRU to reduce its reliance on coal and natural gas as its primary generating fuels from more than 90 percent today to roughly 55 percent by 2023.

Gainesville already has an aggressive renewable energy program. It has a landfill gas program, it has a fully subscribed very healthy solar photovoltaic program, and on the DSM side it also is developing a solid solar thermal water heating program. Even with these initiatives, GRU needs and desires additional renewable energy which will be provided by the project.

Regarding energy conservation measures

available, the City of Gainesville has an aggressive DSM and energy conservation programs which have been based on the total resource cost test recently approved by this Commission since 2006. GRU's energy conservation programs are so successful that they have led GRU's residential consumption to be the lowest in the state of Florida at 831 kilowatt hours per customer per month.

Finally, with regard to whether the proposed power plant is the most cost-effective alternative available, the evidence shows levelized costs of electricity analyses of the GREC project versus gas alternatives including combined cycle and combustion turbine and two pulverized coal alternatives. The GREC project and the power purchase agreement represent the lowest cost alternative in 23 of 28 cases analyzed, and the only cases in which it is not the lowest cost alternative involved cases that use pulverized coal technology with no carbon regulatory costs.

In addition to the fact that the Gainesville City Commission, based on extensive public input, decided against coal and in favor of woody biomass, we have to note the reality that the prospects for permitting coal plants in Florida today or in the foreseeable future are doubtful at best.

Now, I have summarized, and our witnesses'

testimony and exhibits will describe in more detail the extensive process that GRU and the Gainesville City Commission followed in choosing the GREC project. The selection and approval of the GREC project and the power purchase agreement reflect extensive public input from the Gainesville community as reflected and embodied in the unanimous decision of the Gainesville City Commission after 37 public hearings and workshops to pursue this renewable energy alternative.

The Gainesville Renewable Energy Center is the most cost-effective alternative available to meet Gainesville's/GRU's long-term need for electric capacity and energy and to provide the many benefits of Florida-based renewable energy for GRU and for its customers. There is no other alternative available to Gainesville or GRU that will provide all of these benefits at a lower cost than the Gainesville Renewable Energy Center.

Gainesville Regional Utilities, the City of Gainesville, and Gainesville Renewable Energy Center, LLC, respectfully ask that you grant our joint petition for determination of need for the Gainesville Renewable Energy Center.

Thank you.

COMMISSIONER EDGAR: Thank you, Mr. Wright.

Commissioner.

COMMISSIONER SKOP: Thank you, Madam Chairman.

Mr. Wright, in your opening statement you made the assertion that the proposed plant will result in the reduction of coal generation for the City of Gainesville, and that seems to differ from what I'm seeing on Pages 20 and 21 of the handout that was given at the City Commission in Gainesville, the public hearing. Who would be the best witness to address that concern, because I do have a problem with the statement that was made and the way it was characterized?

MR. WRIGHT: I believe that Mr. Ed Regan would be the appropriate witness.

COMMISSIONER SKOP: Thank you.

COMMISSIONER EDGAR: Thank you, Mr. Wright.

MR. WRIGHT: Thank you, Madam Chairman.

**COMMISSIONER EDGAR:** I am showing, am I correct, Mr. Wright, that you have five witnesses?

MR. WRIGHT: In addition to Mr. Kamhoot, yes, ma'am, five witnesses who will testify live.

commissioner edgar: Okay. Let's go ahead and swear you in as a group. If all of the witnesses would please stand together with me and raise your right hand.

Do we have six?

MR. WRIGHT: Mr. Kamhoot is going to take the

1	oath, as well, Madam Chairman.
2	COMMISSIONER EDGAR: Oh. I didn't realize you
3	were here. Welcome.
4	(Witnesses sworn.)
5	COMMISSIONER EDGAR: Mr. Wright, call your
6	first witness.
7	MR. WRIGHT: Thank you, Madam Chairman.
8	GRU and GREC, LLC, call Mayor Pro Tem Sherwin
9	Henry.
10	COMMISSIONER EDGAR: And, Mr. Wright, your
11	witnesses' summaries will be five minutes or under?
12	MR. WRIGHT: Yes, ma'am. We practiced them
13	extensively, and they are all under five minutes.
14	COMMISSIONER EDGAR: I would expect no less.
15	Welcome, Commissioner.
16	THE WITNESS: Good morning, Chair Edgar and
17	fellow Commissioners. First of all, let me start
18	COMMISSIONER EDGAR: Hold on. Mr. Wright has
19	some preliminary matters that he need to address with
20	you before you address us.
21	THE WITNESS: Sure.
22	COMMISSIONER EDGAR: 7mr. Wright.
23	MR. WRIGHT: Thank you, Madam Chairman.
24	SHERWIN L. HENRY
25	was called as a witness on behalf of Gainesville

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Renewable Energy Center, and having been duly sworn, 1 testified as follows: 2 DIRECT EXAMINATION 3 BY MR. WRIGHT: 4 Mayor Henry, please state your name and 5 business address for the record. 6 Sherwin L. Henry, 200 East University Avenue, A. Gainesville, Florida 32601. 8 9 And you are the Mayor Pro Tem of the City of Gainesville and a City Commissioner, correct? 10 11 Mayor Pro Tem as well as Gainesville City Α. Commission elected from District 1. 12 13 Thank you. You are adopting the Prefiled Q. 14 Direct Testimony submitted by Mayor Pegeen Hanranhan in 15 this case, correct? 16 A. Yes, I am. 17 And other than information that is on its face personal to Mayor Hanranhan, if I were to ask you the 18 19 questions contained in that Prefiled Direct Testimony, 20 would your answers be the same as reflected therein? 21 Yes, they would. Α. 22 And do you adopt this as your sworn testimony 23 to the Florida Public Service Commission today? 24 Yes, I do. Α. 25 Q. Thank you. And you don't have any exhibits to

your testimony, do you?

No, I don't.

MR. WRIGHT: Madam Chairman, with that, I would ask that the prefiled direct testimony of Mayor Pegeen Hanranhan, as adopted by Mayor Pro Tem Sherwin Henry, be entered into the record as though read.

COMMISSIONER EDGAR: As requested, the prefiled testimony will be entered into the record as though read.

MR. WRIGHT: Thank you.

1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2		DIRECT TESTIMONY OF PEGEEN HANRAHAN
3		ON BEHALF OF
4		GAINESVILLE REGIONAL UTILITIES AND
5		GAINESVILLE RENEWABLE ENERGY CENTER, LLC
6		DOCKET NO. 690451
7		SEPTEMBER 18, 2009
8		
9	Q.	Please state your name and business address.
10	A.	My name is Pegeen Hanrahan, and I am the Mayor of the City of Gainesville.
11		My business address is 200 E University Ave., Gainesville, FL 32601
12		
13	Q.	Please discuss your role within the City of Gainesville.
14	A.	I am in my twelfth year of elective service with the City of Gainesville, and was
15		re-elected Mayor in March 2007. As Mayor, among numerous other duties, I
16		preside at Gainesville City Commission meetings and currently serve as the
17		Chair of the City Commission's Audit, Finance and Legislative Committee.
8		
19	Q.	What is your educational background?
20	A.	I have Bachelors and Master's degrees in Environmental Engineering from the
21		University of Florida. I also have a BA in Sociology from the University of
.2		Florida. I am a registered Professional Engineer in Florida.
:3		

1	Q.	What is the purpose of your testimony in this proceeding?
2	A.	The purpose of my testimony in this proceeding is to discuss the City of
3		Gainesville's decision to move forward with the Gainesville Renewable Energy
4		Center (GREC) biomass facility.
5		
6	Q.	Are you sponsoring any exhibits to your testimony?
7	A.	No.
8		
9	Q.	Please describe the responsibilities of the City Commission.
10	A.	The City Commission is responsible for governing the City of Gainesville
11		including Gainesville Regional Utilities. The City Commission sets the City
12		budget and tax rates and adopts ordinances and resolutions that set policy for
13		utilities, land use, transportation, law enforcement, fire protection, and other
14		services that affect public welfare. The City Commission is comprised of sever
15		members: four City Commissioners are elected from single member districts,
16		two City Commissioners are elected at-large, and one member is elected as
17		Mayor. As Mayor, I set the agenda and preside over the City Commission
18		meetings.
19		
20	Q.	Please briefly discuss the City of Gainesville's decision to pursue the
21		Gainesville Renewable Energy Center biomass facility.
22	A.	The City of Gainesville's decision to pursue the Gainesville Renewable Energy
23		Center biomass facility is really the culmination of initiatives launched nearly
24		seven years ago with the City Commission's authorization for Gainesville

Regional Utilities (GRU) to investigate solid fuel generating unit alternatives. GRU's subsequent resource planning process (described in detail in the testimony of other witnesses in this proceeding) evolved into comprehensive analyses of biomass alternatives and the decision to move forward with purchasing power from the Gainesville Renewable Energy Center. This multi-year planning process was conducted in the public eye with well over a dozen City Commission meetings, workshops, and public forums conducted on the subject. Overall, the decision to pursue biomass is consistent with the desire of the Gainesville community to reduce carbon emissions through the use of renewable resources. Approving the GREC LLC power purchase agreement (PPA) is one of the actions the City of Gainesville has taken to meet the desires of the community.

A.

Q. Can you please describe the City's pledge to reduce carbon, in particular emissions of carbon dioxide  $(CO_2)$ ?

In 2005, City of Gainesville leaders, along with cities across the US, pledged to reduce carbon. I signed the US Mayors' Climate Protection Agreement on behalf of the Gainesville City Commission. The Climate Protection Agreement calls for reducing carbon emissions to 7 percent below 1990 levels by 2012, and the City of Gainesville is on track to do so in late 2013. This is a particularly aggressive goal, and therefore an impressive accomplishment, given that approximately 60 percent of the electricity currently used to serve Gainesville's homes and businesses comes from coal generation.

Our strategy to reduce CO<sub>2</sub> emissions consists of four main elements: (i) 1 2 improving energy and water efficiency; (ii) improving the efficiency of power generation; (iii) increasing the use of renewable and domestic fuels to generate 3 electricity; and (iv) adopting policies to improve transportation and land use. 4 5 Q. Please discuss how the biomass resource fits into this strategy. 6 7 A. Overall, our approach to increasing the use of renewable and domestic fuels to generate electricity includes the use of solar, biomass, and landfill gas. The 8 9 biomass resource represents a critical component of the Gainesville community's strategy to reduce emissions of CO<sub>2</sub>. When compared to other 10 11 alternatives (with the exception of energy conservation), biomass provides the 12 most significant reductions in CO<sub>2</sub> emissions at the lowest cost. 13 Q. 14 Given that GRU anticipates no need for future generating capacity in the immediate future to maintain reserve margin requirements, can you please 15 discuss why a 100 MW biomass facility was selected? 16 17 Α. There are a number of reasons for selecting the GREC biomass project. By 18 selecting a 100 MW biomass facility, GRU is able to capitalize on lower costs associated with economies of scale when compared to smaller biomass 19 20 alternatives. The selection of the 100 MW biomass facility will allow the 21 Gainesville community to meet the CO<sub>2</sub> emissions reductions targets I've discussed previously and to prepare the community to meet potential renewable 22 portfolio standards and carbon constraint legislation. The proposed project can 23

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operate consistently at a high output level that is dispatchable by GRU. As such,

it is an important companion to our solar photovoltaic Feed-in-Tariff program.

The City Commission also weighed the other benefits of the project such as significant local area employment and environmental benefits. The City Commission ultimately determined that the GREC was in the overall best interest of the Gainesville community. The benefits associated with the proposed GREC project are discussed in more detail throughout the testimony of Mr. Ed Regan.

A.

## Q. Please summarize the events leading to the decision to enter into the PPA with GREC LLC.

In 2003, our utilities staff began evaluating the economic and environmental consequences of coal, petroleum coke, natural gas, municipal solid waste, biomass, and solar technologies. This process included numerous public outreach meetings and presentations before the City Commission, which were broadcast over public access television. One outcome of the process was to embark on an aggressive customer energy efficiency program, including financial rebates, low interest loans, give-away programs, and information. The decision to proceed with the GREC LLC PPA took these new levels of conservation and demand reduction into account, but it was realized there were a number of other factors that needed to be taken into consideration including the need for renewable energy to achieve carbon reduction goals, the long-term need for additional economic capacity, and the other benefits associated with the project such as economic development through job creation and reduced particulate emissions in the region.

1		
2	Q.	How will the GREC LLC PPA affect costs to GRU's customers?
3	A.	Our staff have projected that the GREC will reduce GRU's customers' costs in
4		the long term. There may be some moderate short term cost increases during the
5		early years of the project. These potential short term increases were presented to
6		the City Commission and public during the City Commission meetings leading
7		up to the approval of the GREC LLC PPA.
8		
9	Q.	In conclusion, what are the main benefits that the GREC LLC PPA
10		provides to the Gainesville community?

11 A. The main benefits are long-term economical baseload capacity that helps us to
12 achieve our carbon reduction goals, fuel diversity, improved system reliability,

economic development, and improved environmental conditions in the region.

15 Q. Does this conclude your testimony?

16 A. Yes.

14

## BY MR. WRIGHT:

- Q. And now, Mayor Henry, would you please summarize your testimony for the Commissioners.
- A. Sure. Again, good morning and thank you for this opportunity to speak before you. I am Sherwin Henry and I serve as the Gainesville City Commissioner District 1 and Mayor Pro Tem of the City of Gainesville. I am adopting the Prefiled Direct Testimony of our Mayor, Pegeen Hanrahan, because she is attending the United Nations Climate Change Conference in Copenhagen, Denmark.

My testimony addresses the seven-year process that led to the City's and GRU's decision to contract with Gainesville Regional Energy Center, LLC, to purchase the output of the Gainesville Renewable Energy Center project. Our process was conducted fully in the public eye with 37 public televised sessions including City Commission meetings, workshops, and other public meetings. Our desire to pursue the GREC biomass project is consistent with the desires of our community and the Gainesville City Commission to reduce carbon emissions and to obtain for our citizens the additional benefits of renewable energy such as fuel diversity and reduced price volatility.

In 2005 our City Commission unanimously

adopted a resolution authorizing Mayor Hanrahan to sign the U.S. Mayors Climate Protection Agreement which commits our city to reduce our carbon emissions. GRU, as the arm of the City that operates our utilities, has implemented extensive energy conservation programs that have led to GRU's having the lowest energy consumption by residential customers of all of Florida's electric utilities. 

Even with this achievement, and with our extensive commitment to renewables, including solar, photovoltaic, and landfill gas projects, we need additional generation resources to meet our long-term energy needs as our aging power plants are retired, to address anticipated environmental regulations, including carbon regulation, and to provide long-term fuel diversity and cost protection to our citizens and customers.

The Gainesville City Commission went through a seven-year process fully vetted in 37 public sessions that led us to choose the GREC biomass project and the contract with GREC, LLC. Even with short-term increases in our customers' bills, the GREC project is the best lowest-cost energy alternative available to meet the needs and goals of our community.

As expressed through the unanimous decisions

of their elected representatives, the Gainesville City 1 Commission, we respectfully ask that you approve the 2 project by granting our petition for determination of 3 need for the Gainesville Renewable Energy Center. And 4 5 that ends my summary statement. MR. WRIGHT: Thank you, Mr. Henry. 6 7 Thank you, Madam Chairman. Mr. Henry is available for cross-examination. 8 COMMISSIONER EDGAR: Questions from staff for 9 10 this witness? MR. SAYLER: Just a few, Madam Chairman. 11 CROSS EXAMINATION 12 BY MR. SAYLER: 13 14 15 you? 16

- Good morning, Commissioner Henry. How are
  - Great. How are you this morning? A.
- Excellent. My name is Erik Sayler. attorney with the Public Service Commission, and we do have just a few questions, some of which you have already covered in your opening remarks, so I will skip those, or your opening statement.
  - A. Okay.

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But, first, can you just -- when the City Commission was making its decision, was the Gainesville City Commission and Commissioners aware that by

approving the Gainesville Renewable Energy Center 1 project, or GREC project, the Commission was aware that 2 it could potentially put upward pressure on the rates of 3 GRU customers, is that correct? 4 5 Yes, we were made aware as the process 6 proceeded or progressed. 7 Okay. And in your testimony you indicated Q. that there were potential short-term increases, but just 8 9 in the early years, is that correct? 10 Repeat the question again, sir? 11 Q. That there would be some moderate short-term 12 increases during the early years of the project, is that 13 correct? 14 That is correct. Α. 15 Q. All right. And when it comes to setting rates 16 for Gainesville Regional Utilities, it is the City 17 Commission which approves and adopts any rate increases 18 or rate decreases, is that correct? 19 That is correct. Α. 20 And it is your testimony today that the City Q. 21 Commission and GRU customers were made aware of those 22 potential rate increases? 23 Α. Yes, they were. 24 MR. SAYLER: And that concludes staff's 25 questioning for the witness.

1	Thank you very much for your time.
2	COMMISSIONER EDGAR: Are there questions from
3	the bench? Mr. Wright.
4	MR. WRIGHT: I have no direct. Thank you,
5	Madam Chairman.
6	COMMISSIONER EDGAR: Commissioner, thank you
7	very much. You are excused.
8	THE WITNESS: Thank you.
9	COMMISSIONER EDGAR: Mr. Wright.
10	MR. WRIGHT: We would call Mr. Edward J.
11	Regan. Could I have a moment, Madam Chairman?
12	COMMISSIONER EDGAR: Do you need a break or
13	just a moment in place?
14	MR. WRIGHT: Actually a break would be better.
15	COMMISSIONER EDGAR: Okay. And the court
16	reporter might appreciate it, as well.
17	Commissioners, let's take ten minutes. And we
18	will be back in ten.
19	(Recess.)
20	COMMISSIONER EDGAR: If we could all gather.
21	We are back on the record. And, Mr. Wright, I believe
22	you had just called your second witness.
23	MR. WRIGHT: Thank you, Madam Chairman. So I
24	had.
25	EDWARD J. REGAN

was called as a witness on behalf of Gainesville 1 Regional Utilities and Gainesville Renewable Energy 2 Center, LLC, and, having been duly sworn, testified as 3 4 follows: DIRECT EXAMINATION 5 BY MR. WRIGHT: 6 Welcome back, Mr. Regan. 7 Q. Glad to be here. 8 Please state your name and business address 9

for the record.

My name is Edward J. Regan. My job title is A. Assistant General Manager for Strategic Planning for Gainesville Regional Utilities, and my business address is 301 Southeast 4th Avenue in Gainesville, Florida 32601.

- Thank you. And are you the same Edward J. Q. Regan who prepared and caused to be filed in this testimony prefiled direct testimony consisting of 21 pages?
  - Α. I am.

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- Do you have any changes or corrections to be Q. made to that testimony?
  - Α. I do.
  - Q. Thank you.
- MR. WRIGHT: Madam Chairman, just as a

procedural note, you have in the back of your notebooks, I am reliably advised, copies of Mr. Regan's errata, but he will walk through the changes so that it's clearly in the record.

COMMISSIONER EDGAR: I'll see if I can find it.

MR. WRIGHT: Okay.

COMMISSIONER EDGAR: Mr. Sayler, I'm sure that it is here in front of me, but I am quite sure that I also do not see it. Can you point me to the right section?

MR. SAYLER: It is right after -- in my notebook it's right after Page 21, but -- of the testimony.

**COMMISSIONER EDGAR:** Thank you. I now see it. Everybody else good to go?

Okay. Thank you, Mr. Wright.

MR. WRIGHT: Thank you, Madam Chairman.

## BY MR. WRIGHT:

- Q. Mr. Regan, would you please advise the Commissioners and the court reporter of the changes and corrections to your testimony item by item?
- A. Yes, I will. On Page 1, Line 23, I would like to delete the words "managing generating dispatch operations." My job functions have changed in the last

month.

Exhibit Number EJR-2, the header says "Page 1 of 2." It really ought to say "Page 1 of 1." On Page 19, Line 10, the number "42" should be "44." And on Page 19, Line 16, the number "\$102 million" should be "\$48.8 million."

- Q. And with those changes and corrections, if I were to ask you the questions contained in your prefiled direct testimony today, would your answers be the same?
  - A. They would.
- Q. And do you adopt this as your sworn testimony to the Florida Public Service Commission today?
  - A. I do.
  - Q. Thank you.

MR. WRIGHT: Madam Chairman, I would ask that the prefiled direct testimony of Mr. Edward J. Regan be entered into the record as though read.

COMMISSIONER EDGAR: The prefiled direct testimony of the witness will be entered into the record as though read, with the changes noted by the witness.

## BY MR. WRIGHT:

- Q. Mr. Regan, did you also sponsor exhibits in this -- did you prepare and cause to be filed exhibits in this docket consisting of EJR-1 through EJR-3?
  - A. Are those the ones attached to my direct

1 testimony?
2 Q.
3 A.
4 Q.
5 in your te
6 correction

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Q. Yes, sir.

A. Yes, I did.

Q. Okay. I think that you noted a, a correction in your testimony to EJR-2. Is there a typographic correction to be made to one of your exhibits?

A. That was the correction that I spoke of.

Q. Okay. Thank you.

MR. WRIGHT: Madam Chairman, I would note that Mr. Regan's exhibits EJR-1 through 3 have been identified or marked for identification as Exhibits 8 through 10 on the Comprehensive Exhibit List.

COMMISSIONER EDGAR: Thank you.

(Exhibits 8 through 10 marked for identification.)

BY MR. WRIGHT:

- Q. And, Mr. Regan, did you also sponsor certain sections of the Need for Power Application?
  - A. Yes, I did.
- Q. If you would please just enumerate those sections that you sponsored. The application has already been admitted, but so the Commissioners will know which sections you're sponsoring, that would, that would be helpful.
- A. Yes. I'm sponsoring Section 1 in the need application, Section 2, Section 3, Section 5, Section 6,

Sections 8.1 through 8.4, 9.3, 9.5, 13, 15, 16 and 17.2, 1 all of which were prepared by me or under my direct 2 supervision. 3 Thank you, Mr. Regan. 4 MR. WRIGHT: And, Madam Chairman, 5 Commissioners, I would note that if there's any doubt, 6 these are enumerated on Page 3 of Mr. Regan's testimony. 7 COMMISSIONER EDGAR: Okay. Mr. Wright, before 8 we go any further, I notice, now that I have it in front 9 of me on the errata sheet, that it does say that there 10 11 are some corrections to the Need for Power Application and we had already entered that. Does that need to be 12 13 addressed? MR. WRIGHT: I need a moment. 14 COMMISSIONER EDGAR: Sure. 15 16 (Pause.) MR. WRIGHT: Thank you, Madam Chairman. May I 17 18 proceed? 19 COMMISSIONER EDGAR: Yes, you may. BY MR. WRIGHT: 2.0 Mr. Regan, as part of your errata, did you 21 also submit changes to certain of the sections of the 22 23 Need for Power Application? Yes, I did. 24 Α. Thank you. Could you walk us through those, 25 Q.

please?

A. Okay. On Page 15-2 of the need application,
Table 15-1 gave a substitute table. The reason for the
change was that it did not accurately reflect the range
of rate impacts that we presented to our City

Commission. In fact, the range of impacts were higher
than were shown in that table due to having
inadvertently picked up the wrong column off of a
spreadsheet or the wrong row off a spreadsheet. So that
was revised.

On Page 15-2, in Row 3 there's a number for the high natural gas price scenario in the column for 2019. The negative 2.5 percent should be negative 1.6 percent. I believe it's just a scrivener's error.

On Page 16-1, the last paragraph, these are changes that were also made in the testimony, my testimony. The last paragraph, Line 3 on Page 16-1, should replace 42 with 44, and on Page 16-1, the last paragraph, replace 102 with 48.8.

- Q. And are those all the corrections to the sections of the Need for Power Application that you are sponsoring?
  - A. That is correct.
  - Q. Thank you.

COMMISSIONER EDGAR: And, again, just, just so

FLORIDA PUBLIC SERVICE COMMISSION

I'm clear, is -- do we need to do anything further, 1 realizing that that, that is changes in Exhibit 27 that 2 has already been entered, or those errata changes 3 already incorporated into Exhibit 27? 4 MR. WRIGHT: I believe the answer is that they are not incorporated into 27 as admitted. If it, if it 6 7 COMMISSIONER EDGAR: I just want to make sure 8 we have the right information in the record. 9 MR. WRIGHT: Absolutely, and obviously we want 10 the same. Perhaps it would be best if we simply 11 submitted corrected pages, that they can be put into 27. 12 COMMISSIONER EDGAR: Okay. Will there be 13 errata to other sections of Exhibit 27 with some of the 14 15 other witnesses that are sponsoring portions? MR. WRIGHT: I believe, I believe that one 16 other witness has corrections to sections from the Need 17 for Power Application. 18 COMMISSIONER EDGAR: Okay. Well, maybe, maybe 19 a way to handle it, and I'll, you know, look to staff 20 too, would be, and we can do this at the conclusion of 21 the witnesses, that may be the neatest, neat, clearest, 22 23 would be to enter the errata altogether as a marked exhibit as a -- that's just a thought. 24

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FLORIDA PUBLIC SERVICE COMMISSION

MR. WRIGHT: That would be great. And we did

file, we did file with the Clerk and deliver to staff a copy, copies of the errata on Friday -- or Monday, I quess. Thank you.

COMMISSIONER EDGAR: Mr. Sayler, any thoughts?

MR. SAYLER: My understanding, this will be handled at the conclusion of testimony, or were you contemplating a late-filed exhibit for --

COMMISSIONER EDGAR: No. My, my suggestion was that we handle it at the conclusion of the testimony today prior to adjournment.

MR. SAYLER: Excellent.

COMMISSIONER EDGAR: Okay. Let's try it that way. Again, just so that everybody is clear and we have the correct information and the correct exhibits.

1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2		REVISED DIRECT TESTIMONY OF EDWARD J. REGAN
3		ON BEHALF OF
4		GAINESVILLE REGIONAL UTILITIES AND
5		GAINESVILLE RENEWABLE ENERGY CENTER, LLC
6		DOCKET NO. 090451-EM
7		SEPTEMBER 18, 2009 (REVISED DECEMBER 18, 2009)
8		
9	Q.	Please state your name and business address.
10	A.	My name is Ed Regan. My business address is 301 SE 4 <sup>th</sup> Avenue, Gainesville,
11		FL 32601.
12		
13	Q.	By whom are you employed and in what capacity?
14	A.	I am employed by Gainesville Regional Utilities (GRU) as Assistant General
15		Manager for Strategic Planning.
16		
17	Q.	Please describe your responsibilities in that position.
18	A.	I am responsible for electric, water, wastewater, and natural gas system planning
19		including power supply planning. I am responsible for demand-side
20		management (DSM); load and revenue forecasting; cost of service and rate
21		design; electric system permitting and regulatory compliance; financial
22		planning; and community, legislative, and regulatory affairs. I am also
23		responsible for coordinating GRU's interaction with The Energy Authority

1 (TEA), participating on GRU's Risk Oversight Committee, and coordinating
2 GRU's contracts for wholesale power, solar energy, and combined heat and
3 power services.

# Q. Please state your educational background and professional experience.

A. I received my Bachelor of Sciences degree in Behavioral Psychology and my

Master of Environmental Sciences degree from the University of Florida. I am a

registered Professional Engineer licensed in the State of Florida. I have 30 years

of experience in the utility industry.

A.

## Q. What is the purpose of your testimony in this proceeding?

The purpose of my testimony in this proceeding is to discuss GRU's need for the Gainesville Renewable Energy Center (GREC) biomass facility. I will provide an overview and summary of the GREC Need for Power Application, Exhibit No. \_\_ [GREC-1]. In addition to this general summary, I will discuss GRU's existing system, GRU's reliability criteria and need for capacity, the economic parameters used throughout the GREC Need for Power Application, and GRU's resource planning process. I will also discuss GRU's power purchase agreement with the GREC biomass project, GRU's DSM and supply-side efficiency activities, strategic considerations associated with GRU's decision to pursue the GREC facility, consequences of delaying the GREC facility, and that GRU has the financial resources to commit to the GREC LLC power purchase agreement (PPA).

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2	Q.	Are you sponsoring any exhibits to your testimony?
3	A.	Yes. Exhibit No [EJR-1] is a copy of my resume. Exhibit No [EJR-2]
4		summarizes GRU's existing residential and non-residential DSM programs.
5		Exhibit No[EJR-3] summarizes GRU's recent base rate and fuel
6		adjustments.
7		
8	Q.	Are you sponsoring any sections of Exhibit No [GREC-1], the GREC
9		Need for Power Application?
10	A.	Yes. I am sponsoring Sections 1.0, 2.0, 3.0, 5.0, 6.0, 8.1 through 8.4, 9.3, 9.5,
11		13.0, 15.0, 16.0, and 17.2, all of which were prepared by me or under my direct
12		supervision.
13		
14	Q.	Please summarize the GREC Need for Power Application, Exhibit No.
15		[GREC-1].
16	A.	GRU and GREC LLC are co-applicants, submitting this Need for Power
17		Application in support of the proposed GREC biomass facility to be located at
18		GRU's existing Deerhaven site within the City of Gainesville's corporate limits
19		in Alachua County, Florida. The GREC facility will be owned and operated by
20		GREC LLC, a subsidiary of American Renewables, LLC. GRU will receive
21		power from the GREC facility under a 30 year PPA with a fixed nonfuel energy
22		charge per megawatt-hour (MWh) covering construction, debt service, and all
:3		fixed operating and maintenance (O&M) costs.

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2		Exhibit No[GREC-1] summarizes the planning process leading to the
3		decision to pursue the GREC LLC PPA, and presents the results of a
4		comprehensive analysis that was performed to demonstrate that the GREC LLC
5		PPA satisfies the statutory criteria set forth in Section 403.519, Florida Statutes
6		
7	Q.	Please discuss these statutory criteria.
8	A.	Section 403.519(3), Florida Statutes, sets forth the following criteria which the
9		Florida Public Service Commission must consider, without specifying the
10		weight the Florida Public Service Commission should give to each criteria, in
11		making need determinations:
12		The need for electric system reliability and integrity.
13		• The need for adequate electricity at a reasonable cost.
14		• The need for fuel diversity and supply reliability.
15		Whether the proposed plant is the most cost effective alternative
16		available.
١7		Whether renewable energy sources and technologies, as well as
18		conservation measures, are utilized to the extent reasonably available.
19		Whether there are conservation measures taken by or reasonably
20		available to the applicant or its members which might mitigate the need
21		for the proposed plant.

ł	Ų.	Please summarize now the FFA with GREC LLC satisfies these statutory
2		criteria.
3	A.	The proposed GREC facility is planned to begin commercial operation by
4		December 2013. As a result of the success of GRU's DSM efforts, the addition
5		of combined heat and power and landfill gas-to-energy projects, ongoing
6		additions of solar photovoltaic (PV) capacity through GRU's solar feed-in tariff
7		(FIT), and the effects of the recent economic downturn, GRU does not forecast a
8		need for capacity to simply maintain our 15 percent reserve margin criteria until
9		2023. However, reserve margin is not the only criterion for the need for
10		additional generating capacity.
11		
12		The PPA with GREC LLC provides GRU with capacity that is needed to
13		improve and maintain the reliability of GRU's system. The capacity from
14		GREC is needed to replace capacity from GRU's lowest cost existing fossil
15		fueled unit, Deerhaven 2, during maintenance and forced outages. Deerhaven 2
16		serves approximately 50 percent of GRU's system peak demand and, as an
17		aging facility that will be 32 years old when the GREC facility goes into service
18		in late 2013, the availability of Deerhaven 2 is expected to decrease.
19		
20		The analysis of supply-side alternatives presented in the GREC Need for Power
21		Application, Exhibit No [GREC-1], demonstrates that the PPA with GREC
22		LLC provides lower cost power than comparable natural gas alternatives over
23		the 30 year term of the PPA. While a coal unit may provide lower cost power

1		when not considering costs associated with potential regulation of emissions of
2		carbon dioxide (CO <sub>2</sub> ), when such considerations are taken into account the PPA
3		with GREC LLC provides lower cost power than coal alternatives.
4		
5		In addition to enhancing the reliability and integrity of GRU's electric system in
6		the most cost-effective manner, the PPA with GREC LLC will diversify GRU's
7		existing fuel mix, which is dominated by coal and therefore is potentially at risk
8		under future CO2 regulations, and natural gas, which is subject to volatility in
9		price and availability and also at risk under future CO2 regulations. The GREC
10		facility will take advantage of multiple streams of various types of biomass fuel
11		which will further enhance the reliability of GRU's fuel supply.
12		
13		GRU offers our customers the opportunity to participate in numerous DSM
14		programs, and has worked with several consultants to structure a DSM portfolio
15		that maximizes results. Combined with improvements to the efficiency of our
16		supply-side resources and increased customer-sited renewables and distributed
17		generation, GRU has demonstrated through previous and on-going actions that
18		we are committed to utilizing renewable energy resources and conservation and
19		energy efficiency measures to the extent reasonably available.
20		
21	Q.	Please describe GRU.
22	A.	GRU operates a fully vertically integrated electric power production,
23		transmission, and distribution system, which is wholly owned by the City of

1 Gainesville. In addition to retail electric service, GRU also provides wholesale 2 electric service to the City of Alachua and Clay Electric Cooperative. GRU's 3 distribution system serves our retail territory of approximately 124 square miles 4 and approximately 93,000 residential and commercial customers in both the 5 incorporated and unincorporated areas of our service territory. GRU also 6 provides natural gas, water, wastewater, and telecommunications services. 7 8 GRU has generating units at two primary generating sites – Deerhaven and John 9 R. Kelly. Each site has steam turbine and combustion turbine units, and the Kelly site also includes a combined cycle unit. GRU's existing net summer 10 11 generating capacity is approximately 608 MW. GRU's existing generating units include three fossil fuel steam turbines, six simple cycle combustion turbines, 12 one combined cycle unit, a share of Progress Energy Florida's Crystal River 3 13 nuclear unit, and distributed generation. GRU's main generation unit is the 222 14 15 MW coal fueled Deerhaven Unit 2 which went into service in 1981. GRU also has a generating station called the South Energy Center which provides 16 combined heat and power services to a new Shands HealthCare cancer hospital. 17 18 19 Q. Does GRU utilize power purchases as part of its power supply portfolio? 20 A. Yes. GRU has entered into a 15 year contract to receive 3 MW of landfill gas fueled capacity at the Marion County Baseline Landfill from G2 Energy Marion, 21 LLC. The facility began commercial operation in January 2009, and net output 22 is expected to increase to 3.8 MW by December 2009. 23

2 GRU has a PPA with PEF for 50 MW of baseload capacity, which began 3 January 1, 2009 and continues through December 31, 2013. An additional 25 MW of baseload capacity was contracted for January 1, 2009 through December 4 5 31, 2010, and another 25 MW of baseload capacity was contracted for March 6 through August of 2009 and March through August of 2010. We also have a 7 solar feed-in-tariff (FIT), under which we purchase distributed solar power.

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### Q. Please discuss the solar FIT.

In March 2009, GRU became the first utility in the US to offer a European-style 10 A. solar FIT. Under this program, GRU agrees to purchase 100 percent of the distributed solar power produced from any private installation at a fixed rate for 12 a contract term of 20 years. The FIT rate is set at a level designed to recover 13 costs and provide a profit to system owners in order to incentivize the installation of solar in the Gainesville community and help create a strong solar marketplace.

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#### Q. Please describe GRU's transmission system.

GRU's bulk electric power transmission network consists of a 230 kV radial and 19 A. a 138 kV loop connecting GRU's two generating stations, GRU's nine 20 distribution substations, one 230 kV and two 138 kV interties with PEF, a 138 21 kV intertie with Florida Power & Light Company, a radial interconnection with 22

1		Clay Electric Cooperative at the Famsworth Substation, and a loop-led
2		interconnection with the City of Alachua at Alachua No. 1 Substation.
3		
4	Q.	What planning reliability criteria does GRU use?
5	A.	GRU uses a minimum 15 percent reserve margin criterion for both summer and
6		winter seasons. This is lower than the minimum 20 percent reserve margin
7		criterion that the investor owned utilities in Peninsular Florida have stipulated to
8		use. The 15 percent minimum reserve margin is equal to the 15 percent
9		minimum reserve margin requirement in Rule 25-6.035, F.A.C., required for
10		reserve sharing in the State. The 15 percent minimum reserve margin is also
11		consistent with the reserve margin criterion used by many other utilities across
12		the nation.
.3		
.4	Q.	How is the 15 percent reserve margin criterion applied?
.5	A.	The 15 percent reserve margin criterion is applied to GRU's annual peak
6		demand projections. GRU plans to have available capacity, including capacity
7		from generating units owned by GRU and provided to GRU through PPA
8		resources, that exceeds the annual peak demand plus the 15 percent reserve
9		margin.
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1	Q.	Please discuss GRU's expected need for additional capacity to satisfy
2		reserve margin requirements under the base case load forecast.
3	A.	Due to GRU's demand-side management programs, distributed generation at the
4		South Energy Center and the solar FIT, GRU's initial need for additional
5		capacity to maintain reserve margin requirements is expected to occur in 2023
6		based on our most recent forecasts, which reflect recent economic downturns in
7		the Florida economy.
8		
9	Q.	Please describe the economic parameters used in the GREC Need for Power
10		Application, Exhibit No [GREC-1].
11	A.	A 2.5 percent annual general inflation rate was used. Escalation rates of
12		2.5 percent annually were used for capital and O&M costs. An annual rate of
13		4.2 percent was used for the long-term tax-exempt municipal bond interest rate,
14		interest during construction rate, and present worth discount rate. The 4.2
15		percent rate is based on GRU's current cost of capital.
16		
17	Q.	Are these economic parameters appropriate for use in this Need for Power
18		Application?
19	A.	Yes. They are consistent with current economic conditions and economic
20		parameters that been used in similar evaluations before the Florida Public
21		Service Commission. More importantly, they are internally consistent across the
22		economic evaluations of the GREC LLC PPA included in the GREC Need for
23		Power Application, Exhibit No [GREC-1].

Α.

Q.	Please summarize GRU's planning activities that led to the decision to
	pursue the PPA with GREC LLC.

GRU began an intensive resource planning process in 2003, when our need for additional baseload capacity was in the 2011 timeframe. Extensive, in-depth discussions with the community followed and included evaluations of demand and supply resources, consideration of air quality, and consideration of climate change trends. The resulting process included numerous major policy changes that are summarized in Section 8.1 of the GREC Need for Power Application, Exhibit No. \_\_ [GREC-1], while the timeline of public participation activities is presented in Section 8.2. GRU's integrated resource planning process ranged from technology feasibility screening studies and bus bar comparisons to detailed generation optimization studies.

GRU's resource planning process led to several decisions, including the adoption of using the Total Resources Cost (TRC) test instead of the Rate Impact Measure (RIM) test when evaluating the cost-effectiveness of DSM measures; the issuance by GRU of a solicitation to garner information on the state of the art in power generation (i.e. gasification, integrated gasification combined cycle, plasma arc, etc.); and the decision to not consider additional fossil fuel resources and instead pursue biomass for future baseload capacity. Ultimately, GRU issued a competitive biomass solicitation in 2007. Prior to, and in conjunction with, the competitive biomass solicitation, four biomass

resource studies were conducted to determine if sufficient fuel might be available within reach of a biomass plant constructed within GRU's system.

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Q Who made the decision to only consider biomass fueled technologies, and why?

That decision to pursue only biomass options was made by the seven member Gainesville City Commission (City Commission) on June 18, 2007 after spending several years discussing and reviewing alternatives for future power supply and extensive public outreach and community participation. A number of factors contributed to this decision which was primarily made for long term strategic purposes rather than strictly short term economic benefits. Concern about climate change and potentially consequent regulations that would drive up power production costs for conventional fuels, especially coal was a topic discussed very thoroughly. This concern was the manifest reason that the City passed a resolution to meet the US Mayors' Climate Protection Agreement to meet Kyoto protocols. The City Commission was also keenly sensitive to the environmental emissions associated with various fuels other than carbon, which led to a preference for the use of woody biomass materials rather than municipal solid waste. The City Commission was very aware of the increasing volatility and cost of natural gas and coal, and the benefits of improving energy independence and fuel diversity. Biomass fuels are readily available and for all intents and purposes immune from interruption due to transportation blockages. Finally, the City Commission was aware of the age of GRU's generation fleet,

and investing in an appropriate technology with immediate environmental, local
economic, and regulatory hedge value, combined with the ability to meet long
term capacity and reliability requirements, was a policy decision they made
unanimously May 7, 2009.

Α.

### Q. Please discuss GRU's PPA with GREC LLC.

GRU has entered into a 30 year PPA (from the date of completion of the facility) to purchase 100 percent of the output of the GREC biomass facility. The PPA has been structured to provide long term stable pricing while avoiding any potential for stranded cost. This has been accomplished by structuring all billing elements on a cost per MWh basis. GRU only pays for fixed costs for available energy, and only pays for fuel and variable O&M when GRU actually accepts delivery. In this context, fixed costs include all construction, financing, operation and maintenance costs as a charge per MWh that will not change over the 30 year term of the PPA. The PPA also includes a guaranteed heat rate and availability. The facility will be constructed on property leased from GRU on the Deerhaven power plant site.

# Q. Please describe how the PPA protects GRU from risk.

A. The PPA protects GRU from at least five types of risks: construction risk; financing risk; operational risk; inflation risk; regulatory risk; and replacement power costs in the event of Deerhaven Unit 2 outages. GREC LLC bears all the risk of construction cost overruns and financing interest rate changes once the

based on a \$/MWh energy charge. Thus, if the project is not available to run, 2 GRU won't pay for the fixed costs associated with the project. GRU has the 3 right to dispatch the project as needed and can reduce its generation down to the project's minimum load. The non-fuel energy charge for fixed costs does not 5 escalate over the term of the PPA which protects GRU from the risk of inflation. 6 The use of biomass also protects GRU from a number of regulatory risks related 8 to potential renewable energy portfolio requirements and regulations imposing carbon constraints as will be discussed later in my testimony. 9 10 Q. Given the timing of the need for additional capacity to maintain reserve 11 margin requirements that you discussed previously relative to the 12 13 commercial operation date of the GREC biomass facility, has GRU considered sharing the capacity from GREC with other parties? 14 Yes. GRU is currently negotiating with other municipal utilities that have 15 A. expressed an interest in becoming a counter party to take a share of the 16 17 renewable energy output from the GREC for the initial period of operation. 18 What sort of off-take arrangements are being considered by GRU? Q. 19 GRU envisions structuring an arrangement whereby the counter party(s) will 20 A. share the costs borne by GRU on a pro-rata basis with the addition of wheeling 21 fees and transmission losses required for the delivery of power to the border of 22

notice to commence is issued. The fixed costs associated with the project are

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1		GRU's control area. GRU is considering reselling 50 percent of the facility's
2		output for the initial ten years of GREC's operation.
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4	Q.	Have other entities expressed an interest in such an arrangement with
5		GRU?
6	A.	Yes. To date, at least four municipal utilities have expressed interest in such an
7		arrangement.
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9	Q.	Please summarize GRU's historical and ongoing DSM efforts.
0	A.	GRU has been offering incentives and services to encourage energy
1		conservation and demand reduction since 1980. Through 2008, GRU's DSM
2		programs have resulted in cumulative energy reductions of 151 GWh and
3		cumulative peak demand savings of 30 MW. Through 2025, GRU is projecting
4		cumulative energy savings of 366 GWh and cumulative peak demand savings of
.5		108 MW. GRU's existing residential and non-residential DSM programs are
.6		summarized in Exhibit No[EJR-2].
.7		
8	Q.	Does GRU use rate design to promote energy conservation?
.9	A.	Yes. As shown in Exhibit No [EJR-3], GRU has implemented increasing
0.		block rates for residential and general service non-demand customers t result in
:1		higher costs of electricity as consumption increases. GRU also offers time-of-
2		use rates for all customer classes. Exhibit No[EJR-3] summarizes the
:3		history of these rates and charges from fiscal year 1997 through fiscal year 2010

1		Also included in Exhibit No [EJR-3] is the annual average fuel adjustment,
2		which is applied equally to all kWh sales.
3		
4	Q.	Please discuss GRU's public infrastructure projects.
5	A.	GRU's newest generating unit is the South Energy Center, the first combined
6		heat and power (CHP) plant of its type to serve a hospital in the southeast. The
7		plant is 75 percent thermally efficient, and the site offers the opportunity for
8		expansion to provide services to other nearby public facilities.
9		
10		GRU has supported City of Gainesville infrastructure improvements such as
11		light emitting diode (LED) stoplights and LED crosswalk signals. GRU
12		successfully partnered with the City of Gainesville in pursuing federal funds for
13		a demonstration PV array atop the GRU Administration Building and LED
14		pedestrian lighting at several city-owned facilities.
15		
16	Q.	Please discuss GRU's supply-side efficiency activities.
17	A.	GRU has several programs to improve the adequacy and reliability of the
18		transmission and distribution systems, resulting in reduced energy losses. Our
19		activities include installing distribution capacitors, purchasing high-efficiency
20		distribution transformers, and reconductoring the feeder system.
21		

1	Q.	How will the PPA with GREC LLC benefit GRU from a strategic
2		perspective?
3	A.	GRU's PPA with GREC LLC will provide GRU with numerous benefits from
4		an economic, environmental, and regulatory perspective. The pricing structure
5		of the PPA with GREC LLC is roughly two thirds fixed over the 30 year term of
6		the PPA, and the portion that is not fixed is not nearly as volatile as natural gas
7		or even spot coal prices.
8		
9		GRU's PPA with GREC LLC will provide long term benefits to the community
10		and GRU's ratepayers. Over the term of the PPA, the cost of energy from the
11		GREC LLC PPA will be more economical than conventional combined cycle
12		capacity. The PPA also brings benefits in the form of replacement capacity for
13		units scheduled to be retired. The GREC LLC PPA will add value to GRU's
14		generation portfolio by modernizing GRU's generating fleet, of which two
15		thirds of the capacity is currently at least 28 years of age. The capacity from the
16		GREC facility will improve GRU's generating system reliability from both a
17		firmness of capacity perspective and from the perspective of exposure to high
18		costs of replacement power.
19		
20		In addition, the GREC capacity will provide benefits from a regulatory
21		perspective, helping GRU to satisfy the renewable energy portfolio standards
22		that have been proposed at the state and federal levels and will serve as a hedge
23		against the risk associated with potential future regulations of CO <sub>2</sub> emissions.

1		The price of biomass as fuel for the GREC facility is expected to be much less
2		volatile than conventional fossil fuels and is expected to escalate much more
3		slowly. The benefits of biomass from a fuel diversity standpoint include
4		benefits in terms of diversity of transportation, mitigating fuel price volatility,
5		and contributing to Florida's overall energy independence.
6		
7		Other aspects of the GREC biomass facility contribute to the Gainesville
8		community, and some of these more tangible benefits associated with the GREC
9		facility include minimal exposure to construction and operating risk, creation of
10		over 500 jobs in the region, substantial reduction in the open burning of
11		biomass, no surface water discharge of industrial wastewater, reducing landfill
12		requirements, promoting ecosystem restoration, promoting removal of
13		hazardous fire fuel adjacent to urban development, and supporting silviculture, a
14		major regional industry.
15		
16	Q.	How will delay in operation of the GREC biomass facility adversely impact
17		GRU?
18	A.	In general, delay in operation of the GREC biomass facility will postpone
19		GRU's realization of all the benefits associated with the project that I have
20		discussed previously in my testimony. If the GREC biomass facility has not
21		begun commercial operation by January 1, 2014, it will not be eligible to obtain
22		the Renewable Energy Grant contained in H.R. 1 (the American Recovery and
23		Reinvestment Act of 2009). The increase in GRU's cost of power from the

1	GREC facility resulting from not obtaining the Renewable Energy Grant is
2	\$8.10/MWh, which equates to \$6.4 million per year.
3	
4	The PPA with GREC LLC contains a clause to adjust the nonfuel energy charg
5	by escalation indices to the time of construction commencement. Based on the
6	2.5 percent escalation discussed previously in my testimony, the cost of delay i
7	\$29.6 million per year of delay.
8	
9	Additional consequences of delay include postponing indirect economic
10	benefits. GREC will employ an estimated 44 people in operation of the project
11	with an estimated payroll of \$4 million per year. An additional 400 to 500
12	people will be employed obtaining the fuel supply, with an estimated annual
13	payroll of \$18 million. At peak construction, GREC will employ 400 people
14	with an estimated payroll of \$1.5 million per week during the peak construction
15	period. Over the entire construction cycle, construction payroll will total
16	approximately \$48.8 million.
17	
18	Delay in operation of the GREC biomass facility will delay the reliability
19	benefits, as well the regulatory and legislative benefits, associated with the
20	GREC LLC PPA that I have discussed previously.
21	

1	Q.	How will GRU's financial position be affected by the PPA with GREC
2		LLC?
3	A.	Given that the transaction with GREC LLC is structured as a PPA rather than
4		GRU obtaining an equity share in the facility, the annual costs for GRU's
5		participation are not tied to an investment in a self-build asset. As such, the
6		ability to finance construction of a new generating unit is not an issue.
7		
8		GRU's strong credit ratings are, however, important from a project finance
9		perspective, as GRU is the counterparty to the PPA upon which GREC LLC wil
10		obtain project financing. Standard & Poor's and Moody's have issued bond
11		ratings to GRU of AA and Aa2, respectively. GRU stands out with these
12		superior ratings, being among the top 20 of the highest rated municipal utilities
13		that are rated by these two agencies. GRU has maintained a total debt service
14		coverage ratio of 2.0 times, a fixed charge coverage of 1.5 times, and an equity
15		ratio of 20-30 percent in fiscal year ending 2009. These economic indicators are
16		projected to continue to improve in later years due to the GREC LLC PPA. All
17		of these ratios are well within the range of other organizations with the same
18		bond ratings from Standard & Poor's and Moody's that GRU has been issued.
19		
20	Q.	In conclusion, what are the main benefits that the PPA with GREC LLC
21		provides GRU?
22	A.	Next to landfill gas, which GRU already has and which is very limited in
23		quantity, biomass generation is the lowest cost renewable energy resource

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8	Q.	Does this conclude your testimony?
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6		hedge against future RPS and regulations of CO <sub>2</sub> emissions.
5		generating units. The GREC LLC PPA will provide GRU with a substantial
4		reliability and increase the diversity and reliability of fuel supply for GRU's
3		with minimal risk to GRU. The GREC LLC PPA will enhance GRU's system
2		LLC has the further benefit of providing economical firm, dispatchable power
l		available to GRU, baseload or otherwise. The structure of the PPA with GREC

COMMISSIONER EDGAR: I'm sorry, Mr. Wright.
Go right ahead.

MR. WRIGHT: Thank you very much, Madam Chairman. And with that, I would ask Mr. Regan to summarize his testimony.

THE WITNESS: The purpose of my testimony is to demonstrate how GREC, this is called GREC, meets all the statutory criteria which the Florida Public Service Commission must consider in making its determination of need.

The first consideration is the contribution the proposed facility makes toward electric system reliability and integrity. Two-thirds of GRU's generation capacity is over 28 years old and 65 megawatts will be retired in the next ten years. In order to maintain GRU's 15 percent capacity reserve margin, additional baseload capacity will be needed by 2023.

reliability in two ways: It will meet the planning reserve margins, and it will provide highly reliable baseload capacity that will immediately improve the average age and reliability of GRU's generation fleet.

The second consideration is the contribution the facility makes to providing adequate electricity at

reasonable cost. GREC will provide adequate electricity at reasonable cost because of the reliability benefits just described, that I just described and the following four reasons.

One, GREC has a lower levelized cost per kilowatt hour than natural gas-fired alternatives.

Two, the PPA has a guaranteed heat rate and 30-year fixed prices for everything but fuels and chemicals, both of which will protect customers from price escalation and unanticipated construction and operating expenses.

Three, GRU will own all the environmental and renewable energy attributes from GREC, which are a very valuable hedge against pending regulations.

Four, GREC will reduce reliance on GRU's coal-fired Deerhaven 2 which supplies over two-thirds of Gainesville's energy requirements, and will also reduce exposure to the volatile price of natural gas for the remainder of our generation units.

The third consideration in Section 403 is the contribution the proposed facility will make towards fuel diversity and supply reliability. Currently, GRU relies on coal and natural gas to meet roughly 94 percent of its electrical energy requirements. Coal is supplied over a single rail spur and natural gas is

supplied over a single pipeline.

With GREC, GRU's reliance on coal and gas will be reduced by 18.5 percent just by GREC alone by 2023 and by over a third or 33 percent by 2032. Fuel for GREC will be obtained from numerous companies and suppliers spread geographically throughout the North Central Florida region and is not prone to a single contingency outage as are the other fuels.

The fourth consideration in Section 403 is the proposed facility -- is if the proposed facility is the most cost-effective. GREC is the most cost-effective firm baseload renewable energy facility available because of the following five reasons.

First, woody biomass is by far the most abundant and least costly form of renewable energy in North Central Florida.

Two, the GREC LLC's proposal was chosen after a nationwide competitive solicitation.

Three, the size of GREC optimizes both the unit heat rate and the cost per unit KW.

Four, GRU gets to keep all the environmental attributes of the project.

And, five, the PPA provides significant financial benefits not available if GRU were to own and operate this plant.

First, federal tax and grant incentives are not eligible for a tax exemption entity (phonetic) like Gainesville.

Second, there are numerous risk protections in the contract. There are seasonally adjusted availability guarantees with performance bonds, there is a contractual heat rate, and there is no exposure to cost overrun or other kinds of financial problems based on unforeseen events.

The fifth and sixth considerations in Section 403 are the extent to which the applicant is taking advantage of renewable energy and conservation, and if additional demand-side management could mitigate the need for the proposed facility.

The following achievements demonstrate that GRU meets these criteria. GRU's residential customers have the lowest average electrical consumption of any generating utility in Florida; 830 kilowatt hours a month. I was hired at GRU 30 years ago to set up those programs.

Two, the use of the total resource cost test assures the maximum cost-effective conservation program design.

Three, all customer classes are eligible for rebates and they all have rate designs that incentivize

1 energy management.

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Four, GRU supply-side programs include generation, transmission and distribution improvements, as well as distributed generation.

Five, GRU's existing renewable programs include landfill gas to energy, solar thermal and photovoltaic rebates, and the first European style solar feed in tariff offered by any electric utility in the United States.

In conclusion, GREC will increase the use of renewable energy, improve system reliability and increase fuel diversity and supply reliability all at a reasonable cost.

The GREC proposal satisfies all the statutory criteria for determination of need by the Florida Public Service Commission. Thank you for the opportunity to speak. And I want to apologize if I garbled a little bit. I had my braces tightened and they hurt.

**COMMISSIONER EDGAR:** Commissioner Skop.

THE WITNESS: That concludes my comments.

MR. WRIGHT: And, and Mr. Regan is available for cross-examination, Madam Chair.

COMMISSIONER EDGAR: Did you have questions?

Do you want to do that before staff or after?

COMMISSIONER SKOP: Before.

COMMISSIONER EDGAR: Okay. Commissioner Skop.

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COMMISSIONER SKOP: Thank you, Madam Chair.

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Good morning, Mr. Regan.

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THE WITNESS: Good morning.

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COMMISSIONER SKOP: And I have the same

problem too. I get my braces tightened next Monday, so

I think I will probably be similarly situated.

I have quite a few questions regarding the application for the determination of need. I guess starting on Page 4 of your prefiled testimony, Lines 7 through 22 basically recite the statutory criteria for the Commission granting a determination of need pursuant to Section 403.519, Florida Statutes. And I think that the remainder of your testimony seeks to match GRU's petition to the statutory criteria.

If I could ask you to turn to, now to Page 5 of your prefiled testimony, Lines 7 through 10, you state that GRU does not forecast a need for capacity to simply maintain a 15 percent reserve margin until 2023. You also state the reserve margin is not the only criterion for additional generating capacity.

I quess the question I have in relation to that statement, and if I could refer you to I think what has been marked as Exhibit 29, which is the presentation that was given at the City Commission meeting with the,

the charts. 1 THE WITNESS: I have it before me. 2 **COMMISSIONER SKOP:** Okay. 3 THE WITNESS: Page 21, did you say? 4 COMMISSIONER SKOP: 20, please, to start with. 5 I'll give everyone a moment to -- okay. 6 On this chart on Page 20 of Exhibit 29, 7 basically it details the load forecast with reserve 8 margin from the period of 2000 through 2044; is that 9 10 correct? THE WITNESS: That's correct. 11 12 COMMISSIONER SKOP: Okay. And basically the 13 black line that we're seeing here indicates peak load plus your reserve requirement, which is unlike the FRCC 14 requirement of a 20 percent, GRU uses a 15 percent 15 16 reserve margin; is that correct? THE WITNESS: That is correct. 17 18 COMMISSIONER SKOP: Okay. So basically that 19 line represents, the black line represents the peak load 20 requirement of your customers plus a 15 percent reserve 21 margin. 22 THE WITNESS: That is correct. 23 COMMISSIONER SKOP: Okay. The question I have 24 in relation to that, and, again, subject to check, is

that in 2010, if you look at the bar chart here on that

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page, your installed generation capacity appears to be, from that bar line for 2010, 715 megawatts of total generating capability; whereas, if you look on the black line, which indicates the load, peak load plus the 15 percent reserve margin, it would seem to correspond to a requirement of 505 megawatts.

Now subject to check and backing out that

15 percent reserve margin so I could actually calculate
what the reserve margin currently is, subject to check,
backing out the 15 percent reserve from the 505 megawatt
number, it would indicate that your peak load
requirement in 2010 is approximately 439 megawatts.

So if you take the installed generation with, shown on 2010 and divide it by your peak load, it would seem to me that in 2010 you have approximately a 63 percent reserve margin for installed generating capability. Would, would you agree to that, subject to check?

THE WITNESS: I would agree to that calculation subject to check. I would like to point out that the black part of that bar is 100 megawatts of firm, a slice of the baseload system from Progress Energy, which we actually have contracted for for many of the same reasons that we're interested in, in the GREC project, for system reliability, integrity and a

hedge against a high fuel price. 1 **COMMISSIONER SKOP:** And I appreciate that and 2 I understand that, and apparently that PPA lapses in 3 2013, if I'm correct. Is that also right? 4 THE WITNESS: It actually lapses in two 5 6 phases. COMMISSIONER SKOP: Okay. All right. Now 7 moving -- with respect to that, that PPA and one of the 8 other concerns that have been brought up in terms of 9 wholesale sales to Alachua, City of -- I mean, 10 11 Alachua -- City of Alachua, excuse me, and Clay, is any 12 of that Progress PPA used to serve those wholesale 13 loads, given the high reserve margin that Gainesville currently has or GRU currently has? 14 THE WITNESS: Both of those contracts have 15 16 fuel price based on formulas related to system average 17 production costs. To the extent that Progress is being 18 dispatched on our behalf, it becomes a part of our 19 system average production cost. 20 COMMISSIONER SKOP: Okay. All right. Thank 21 you. THE WITNESS: So I think the answer would be 22 23 yes. 24 COMMISSIONER SKOP: Okay. Moving on Page 20 25 to the 2022 mark or actually 2023 mark, that's where GRU

actually drops below the black line, indicating a need for additional generating capacity; is that correct?

THE WITNESS: That is correct.

COMMISSIONER SKOP: Okay. Now looking at 2022, if you look at the bar chart there, and after that Progress PPA has expired, it appears that the installed generating capability without the addition of the new plant is approximately 580 megawatts with a -- and looking on the black line for 2022, you see that the requirement for peak generation plus 15 percent reserve is approximately 545 megawatts. So backing that reserve margin out to calculate what the reserve margin actually would be in 2022 without doing anything, and subject to check, if you take 580 divided by 473, you'd get a 22 percent reserve margin in 2022. Would you agree with that number, subject to check?

THE WITNESS: Subject to check, I would agree that it's certainly above the 15 percent.

commissioner skop: Okay. And that's not necessarily a bad thing for major IOUs. For major IOUs, you know, we adopt a 20 percent reserve margin for, for reliability and planning purposes.

I guess what, what I'm trying to gain a better appreciation and understanding of, if there is excess or surplus capacity through 2023, then from a, a capacity

need basis there is no need to add an additional 100 megawatt plant during that time period; is that correct? **THE WITNESS:** That is correct for strictly capacity reasons for meeting your planning reserve margins. COMMISSIONER SKOP: Okay. All right. Thank you. Now on Page 5 of your prefiled testimony on Lines 15 through 18 you discuss the Deerhaven 2 facility that serves 50 percent of GRU's peak demand and is a coal-fired plant; is that correct? 

THE WITNESS: That's correct.

COMMISSIONER SKOP: Okay. Now you mentioned this is, is an aging facility that'll be 32 years old in, in 2013; is that correct?

THE WITNESS: Yes. That's correct.

mean, what was the useful life of that plant when it was put into service? And the reason I'm asking this is that the majority of our investor-owned utilities, when they have a coal plant or either a nuclear plant, the actual service life of the plant is typically sometimes almost double what the initial service life would be. I mean, we have, we have useful lives for coal plants that are, you know, approaching 60 years. So I'm trying to

get a better perspective on how a plant that may be 1 32 years old, in three or four years from now you're 2 expected to retire that plant. Because I'm not seeing 3 that from the chart on Page 20 of the graph because I 4 5 don't see the retirement there. THE WITNESS: Let me -- can I make sure I'm 6 hearing your question correctly? 7 8 **COMMISSIONER SKOP:** Okay. THE WITNESS: The unit is currently 28 years 9 10 old. What year were you looking at? 11 COMMISSIONER SKOP: Well, I'm trying to, I'm 12 trying to understand. I mean, typically -- obviously I 13 think you've agreed to the question that the need to add 14 100 megawatts of additional generating capacity is not 15 predicated on the need for additional capacity nor the need for additional rely -- reserve margin. So I'm 16 17 trying to understand, you know --18 THE WITNESS: Yeah. 19 **COMMISSIONER SKOP:** -- pursuant to the 20 statutory criteria, what would justify the need for 100 21 megawatts of additional --22 THE WITNESS: Okay. 23 **COMMISSIONER SKOP:** -- baseload generation, 2.4 for lack of a better word. Because I believe that the 25 biomass project will be more baseload than intermediate

load.

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So looking on Page 20, again, you have -- and this is without the biomass project. You have adequate reserve through 2022, dropping off slightly in 2023. But I don't see any detrimental impact to the base capacity, which is in most part generated by Deerhaven 2, I would imagine, for the most part. I don't see baseload capacity falling off there as, as seems to be alluded to.

I mean, typically a coal plant -- I think the argument is being made that it's 32 years old and it may not be as available, but it seems to be, that doesn't seem to be kind of reflected. Is that chart just reflecting the installed baseload capacity and not taking into account the degradation of the unit? Or how sure are we that, that Deerhaven is going to fall off the cliff? I mean, because it seems to me to be important to the discussion because it seems to be emphasized that we have, that GRU has an aged generating fleet. But if that is just a statement rather than substance, I mean, if Deerhaven 2 is not going to be retired any time in the near future and still continue to serve native baseload generation, then to me, you know, we need to find another criteria to justify the need to add 100 megawatts. So if you could briefly

explain that, I'd appreciate it.

THE WITNESS: Okay. I think I'm going to attempt to answer your questions by sort of walking through the sequence of retirements and helping explain that.

But before I do that, I will say that to have, our system -- not only does this one unit provide

50 percent of our peak capacity, it, it's close to -
70 percent of the energy, if you average it over the

last five years -- 2008 was an extraordinary year, it

was a much lower year. It was a bad year for that unit.

What that does is it puts a lot of our fuel costs -- it is a coal unit. Its production costs, subject to check, is something on the order of \$42 a megawatt hour. Gas units, we don't have any gas unit that has a heat rate better than nine. Our CTs are up in the 14s and 15s. So when that unit goes down, it makes a big difference in our price.

And, in fact, I've been doing bond ratings for Gainesville Regional Utilities since 1989, and it's always been an issue with the rating, rating agencies is our reliance on that one unit. And just for plain old reliability and cost, that unit is very important.

However, we are assuming that it will certainly meet its 50-year life, which is its nominal

rated life. Hopefully it'll go further. We're not planning any facilities out in the 2023 -- 32 time frame. That's not really that germane. But it's important to look -- we wanted to look at the whole mix of our generation fleet over the life of this contract.

Prior to 2023 we are going to be retiring three CTs at Kelly Station which are currently in excess of 40 years old. Their heat rates are such that they're way out of the money. They're very expensive to keep in operating condition. Just heating them up and running them at all becomes pretty cost prohibitive.

Just as a little sidebar, one of the issues we're looking at is can we replace those with units that would allow us to distribute chilled water throughout the community as a distributed generation source.

Then we have Kelly 7, which is also of a high vintage, and that's -- and there's a little table off to the side there that shows those numbers. Kelly Fossil Steam 7 is currently 48 years of age, and that's also something that will be coming off. Those are all relatively small. The next unit up in line would be Deerhaven 1, which is an 80-megawatt fossil steam fired by natural gas.

So we're not, you know, we're not trying -- we're not claiming that we're going to retire

Deerhaven 2 as a part of the need for this GREC. But by 2023, if you'll notice that there are incremental steps through time through there -- it's a little confusing because we're also increasing our capacity in solar.

And for -- in solar our, our data indicates that the, we do take a credit for solar with a 35 percent coincidence factor, and that's been adjusted in this, into this table.

**COMMISSIONER SKOP:** Okay.

THE WITNESS: So it has some benefits of peak, but not 100 percent. So does that help the Commissioner with his question?

COMMISSIONER SKOP: It does. Thank you,

Mr. Regan. And, again, I think the, if I understood

what you stated is that Deerhaven 2 has a 50-year

service life and basically it will be approximately

32 years old in 2013. Is that an accurate statement?

THE WITNESS: Yes. And in our internal debates we have just finished completing, if I might elucidate on that, completed retrofitting that unit with the equipment it needs to meet the CAIR and CAMR requirements for mercury and sulfur and everything. And we would certainly hope that we get more than 50 years out of it. The uncertainty of that date is one of the reasons. why throughout this entire proceeding we have

assigned zero avoided capacity benefit to GREC. It's all been avoided fuel.

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commissioner skop: Okay. On Page 5 of the prefiled testimony you indicated in 2013 that the availability of Deerhaven 2 is expected to decrease. But you stated you recently made improvements to, to comply with federal environmental emissions regulations. Why would you make those improvements if you thought that the unit, didn't have confidence and that the availability would go down substantially? Why would GRU make those type of investments?

I'm trying -- I guess what I'm trying to understand here is the statements being made, and I understand on the basis of capacity there does not appear to be a need with a, with a, you know, 63 percent reserve margin. So, again, we're getting into . reliability issues now, and that's what I'm trying to get a better appreciation for. But what I'm, what I see is a baseload generating unit with the assertion in the prefiled testimony that in the near term that unit is going to degrade substantially, yet it's nowhere near to its 50-year service life. So I'm trying to rationalize how that might be, you know, appropriate. I mean, what is the effective forced outage rate for the unit?

THE WITNESS: I don't have that specific

number with me right now.

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**COMMISSIONER SKOP:** Okay.

for that unit we are doing things to improve or reduce the frequency of boiler leaks (phonetic), replacing a super heater. But if you take out the GADS data for units of this type, there is a very pronounced trend towards increased frequency of outage, that we're doing everything possible.

If, if we were going to justify the GREC facility strictly on meeting reserve margins, we would be building it six years later than we're building it now. And so the six years advance is really to attain some of the other benefits we're talking to, primarily to meet our carbon goals.

COMMISSIONER SKOP: Okay. And that was one of the questions that again I had on Page 21 of the, what has been marked as Exhibit 29, which shows the effect of adding the proposed biomass project, 100 megawatts, to the prior chart shown on Page 20. And it seems that even in 2023 you will still need some form of additional generation even with the addition of the biomass plant; is that correct?

THE WITNESS: If I recall the table, specifically our capacity reserve margin is plus or

minus a half of a percentage of the 15 percent.

COMMISSIONER SKOP: Okay. So --

THE WITNESS: And that's certainly well within the error of the forecast.

commissioner skop: Okay. So you would, you would not expect to add any additional generation probably through 2032 as shown on that graph. You'd meet any deficit of reserve margin through purchased power or being able to purchase power, if necessary.

to say that this forecast reflects not only a major downturn in the economy, but a growth rate that is 60 percent lower than prior years. If you look at the history, you can see what the curve was like, and that's in reflection of our demand-side management programs.

COMMISSIONER SKOP: Okay. With respect to that statement and a prior statement you made about GRU through its, I guess, educating the customers, its customers, of which I am one, you state that GRU has the lowest consumption of any --

THE WITNESS: Generating utility in Florida.

COMMISSIONER SKOP: Yes. Okay. If, if GRU continues to, to push and advocate for energy conservation and efficiency measures, what will that do to the need for additional generation vis-a-vis that

there appears to be significant excess generation capacity on, on Page 21 of that chart? So, so, again, trying to better understand, is there -- I think there's no -- is it fair to say there's no need based on capacity through 2023?

**THE WITNESS:** Absolutely.

COMMISSIONER SKOP: Okay. All right.

if, if our conservation programs are more successful than we think, which, in particular our redesigns, those were a venture to social science, and we can have a long discussion as to whether the price elasticities we were assuming were, are accurate at the, at the kind of market changes we're seeing. But if the conservation programs are more effective than we thought than in 2023, we'll have a little bit more than a 15 percent reserve margin and we will be carrying a little bit extra reserves longer than that.

But keep in mind that a lot of our generating units are paid for and have, they're expensive to run because they are a relatively low efficiency.

COMMISSIONER SKOP: Okay. Thank you. Now with respect to the chart shown on Page 21, which shows the addition of the 100-megawatt biomass plant, and also looking at Page 14 of your prefiled testimony beginning

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24 25 at Lines 11 through 22, you talk about the need to add the biomass plant, and I think previously mentioned to address the city's initiatives for reducing CO2 emissions and some of the other measures. And also I think you've, you've mentioned that the city, I mean the company will retain the environmental attributes associated with the project.

What, I guess, measures in terms of adding the additional capacity -- I think you mentioned four municipalities are interested in purchasing the power from the biomass plant. But is it correct to understand there is no formal contract in place regarding the desire to sell 50 percent of the 100 megawatt capacity?

THE WITNESS: There is a formal contract in place that is a confidentiality agreement so that they can review the PPA and discuss the terms and conditions of that, which is absolutely essential for them to understand, but we have not struck a purchased power agreement yet at this time.

COMMISSIONER SKOP: Okay. Referring back again to the graph on Page 21 of Exhibit 29, the proposed biomass plant is supposed to come into service in 2013, and on that chart again there's significant excess capacity during that time, including during the time from 2013 to 2023 when GRU proposes to sell

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50 percent of the generation of the biomass plant.

I think the question I would have there, and, you know, you can address it either via the cost of generation or what have you, but there doesn't appear to be a need based upon additional capacity. So I'm trying to understand that if the need were granted for the biomass plant, which is 100 megawatts of green power, and GRU is, I mean GRU as well as the City of Gainesville and the mayor and the mayor pro tem is committed to being green and all the other initiatives, whether it be the feed in tariff, many of the energy conservation measures that GRU has done, and I often commend GRU during our hearings for the steps they've taken in that regard.

But I guess my question would be is why would you sell off the green power as opposed to entering into agreements to sell off your intermediate and peaking excess capability? Because you already have that. I mean, even without the biomass plant, you don't need another electron through 2023. So during that period why would you not keep that green power in, in Gainesville and contract what is shown by the blue line and the red lines on Page 21, contract that instead, sell off that power or basically have offtake arrangements for, for that excess capacity?

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ratepayers is they've made the investment for generating assets that are essentially stranded by virtue of the significant levels of excess capacity that's available for generation. So it's kind of like the, either the assets are going to be sitting there idle or they're going to be, you know, curtailed like a combined cycle unit, you may not run it at full load, you may curtail it or even cycle it off. But I'm trying to get a better handle on the decision to sell off the green power as opposed to some of the other generating resources that, that are indicated by the red and blue lines during that period from 2013 through 2024.

THE WITNESS: Let me organize my, my thoughts for a second.

**COMMISSIONER SKOP:** Okay.

THE WITNESS: There's, there's --

COMMISSIONER SKOP: And I apologize for the data dump on that one, but, again, I'm trying to get a better handle on what the thought process here was.

THE WITNESS: First of all, when -- and, you know, Schef is giving me the beady eyes, so I have to be careful here.

**COMMISSIONER SKOP:** It's probably because I ask tough questions.

THE WITNESS: First of all, we have not signed a PPA for selling the power. And as your staff have recognized, there are contingencies under which we would not. But the, the first -- and that would be if one, if the high case that AEO produced for HR 20 -- I always get these numbers wrong -- 2554, I think that's it, the Waxman bill, if that does go through, this unit would likely, it would be in the money from day one. We would not sell the power off. That's the first thing.

The second thing is that the dispatch merit for this unit will be below that of coal. It will be dispatched before coal. But the fixed charge that goes with that energy is, is what puts it above the market in the early years, as your staff has shown you.

And so to mitigate the effect on our ratepayers under the scenario that there is no carbon regulation, it hasn't happened. I mean, we all thought retail deregulation was coming, but it didn't. So we are, are planning -- our base case is business as usual, straight up utility economics.

So that -- we really had in mind a little bit smaller unit when we started the RFP process. We were looking, if you go back to the RFP, we were in the range, subject to check, between 60 to 80 megawatts. This unit, when we saw the advantages it brought in

terms of almost, and it's actually described in Section 15, I believe, 30 percent reduction in the cost per kilowatt because of its size and because it had -- one of our Commission, Commission's objectives when they adjusted our evaluation criteria is just because it's low cost fuel doesn't mean you want to waste it. It's a very efficient unit for a unit of this type.

And so those kinds of benefits, it became obvious that it's a unit -- we're going to need capacity out in the future. I think we all can agree to that.

Maybe not -- certainly by 2032 we're going to need more capacity, even if Deerhaven keeps going for another five years. The -- so we, so particularly because, and I don't want this to come out the wrong way, but it is on our land. It's in the City of Gainesville. It's our unit. So we thought, well, why not go ahead and take advantage of those things.

We reviewed our fuel studies, which indicate that a much larger unit could actually be supported, and decided to go with this unit. And as a hedge, we, we wanted to find out if there was interest in offloading part of the capacity, and that's where we are with that discussion.

Now in terms of -- there is no doubt in our minds that the, the, this unit will free up some of our

other capacity, including some coal. The question of how do we -- what is the value of that? This is probably the second most conservative feature of our analysis is that we took no economic value consideration at all of the value of that freed up capacity into the market, and that's really for two reasons.

The first reason is the City Commission may choose not to run those units as a way of furthering their carbon goals. If we put in a biomass unit and run the plant to its maximum, where is the net change in carbon? So that's an issue.

The second issue is a lot more practical, and that is -- I've been involved in power marketing for a long time, I'm on the, sit on an operating committee for the Energy Authority, and to try to value those resources in the market today would be an endless conversation. So we said just for conservative's sake, let's just assume it's zero, and that's what we did.

COMMISSIONER SKOP: And thank you for that.

And, Madam Chair, I just have a few more questions.

So if I, if I understood the thought process on, on, you know, how you would look at the biomass plant in terms of -- I think initially you thought that you would, if you didn't think carbon was coming, that you would shift it out six years to the right on that

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commissioner skop: Carbon legislation has not come yet, and so that drove the decision to somewhat hedge by selling 50 percent of the generation. And you said that this biomass unit would be dispatched before coal. Now is that only true if the Waxman-Markey bill and carbon legislation actually happens?

Yeah.

THE WITNESS:

THE WITNESS: No. That -- I think I forgot to say something that's fairly germane is that the 50 megawatts lets us meet our stated policy objective of meeting the Kyoto Protocol. I just, I forgot to say that. The dispatch is without any consideration of carbon or RECs.

COMMISSIONER SKOP: For price. Okay. So, so dispatch would not be economic dispatch, because I think you previously stated the cost per megawatt for coal was about \$42 per megawatt.

THE WITNESS: You could infer that the cost, the incremental cost of turning this unit on that our ratepayers would bear is -- and I'll have to explain a little bit about the contract structure, but let me just say this, it is below that number. And the contract is a performance contract. There is no fixed capacity charge. If the unit is not going, you don't pay

anything.

COMMISSIONER SKOP: Okay.

THE WITNESS: As long as it's available though, for every megawatt that they could produce, there is a nonfuel energy charge that we will pay.

commissioner skop: Okay. I had hoped not to get into that, but I guess you said something and I'm trying to clarify what I'm hearing because I'm hearing different things.

Earlier in your testimony I think you stated that the, the dispatch cost for your coal unit is approximately \$42 per megawatt.

THE WITNESS: Subject to check.

COMMISSIONER SKOP: Okay. And I thought that I just heard you say that, that even if carbon legislation did not pass, the biomass plant would be dispatched before the coal unit; is that correct?

THE WITNESS: It would be dispatched after our nuclear capacity and before the coal unit.

commissioner skop: Okay. Now -- and you stated that that was to meet the Kyoto Protocol in terms of CO2 emissions, is that correct, for that dispatch decision?

THE WITNESS: I was casting back to the conversation on the strategic decision to market

50 megawatts. And one of, one of our planning 1 assumptions is that, well, what if there is no carbon 2 regulation? We still have a policy commitment by the 3 City Commission to meet the Kyoto Protocol, and the 4 50 megawatts allows us to do that. 5 COMMISSIONER SKOP: Okay. Would you, would 6 you agree that there's a difference between economic dispatch and then discretionary dispatch as to meeting 8 protocols? 9 THE WITNESS: Absolutely. 10 **COMMISSIONER SKOP:** Okay. So if the dispatch 11 cost for coal is approximately \$42 per megawatt, subject 12 to check, and you indicated that the biomass project 13 would be dispatched prior to coal, then that's not based 14 on economic dispatch; is that correct? 15 THE WITNESS: That is based on economic 16 17 dispatch. COMMISSIONER SKOP: Okay. Can I ask you to 18 19 turn --THE WITNESS: The production costs will be 20 21 south of \$42. 22 COMMISSIONER SKOP: Can I ask you to turn to 23 the confidential document Appendix 3 for the contract 24 price, please? THE WITNESS: I don't have that before me. 25

COMMISSIONER SKOP: Okay. Can somebody 1 2 provide that to you? MR. WRIGHT: Madam Chairman, could I just --3 COMMISSIONER EDGAR: Mr. Wright. 4 MR. WRIGHT: I, I just would ask that 5 6 Commissioner Skop repeat the page number. I was 7 reaching for it. COMMISSIONER SKOP: It's in Roman numeral, so 8 it's XIV, Appendix 3, Contract Prices. That does, it 9 10 does not have a page. COMMISSIONER EDGAR: Would that be 14? 11 MR. WRIGHT: According to my Latin, yes, 12 13 ma'am. 14 **COMMISSIONER SKOP:** Yeah. Thank you. MS. HELTON: Madam Chairman? 15 16 COMMISSIONER EDGAR: Ms. Helton. MS. HELTON: If I could just state for the 17 record so that everybody understands, the yellow 18 highlighted, highlighted information is confidential and 19 that should not be, that information there should not be 20 21 stated on the record. So if we can, as Commissioner 22 Skop knows, but I'm trying to make sure everybody else 23 knows, ask our questions in such a way so that that 24 information is not revealed.

FLORIDA PUBLIC SERVICE COMMISSION

COMMISSIONER EDGAR: Thank you.

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1	COMMISSIONER SKOP: Thank you, Madam Chair.
2	Mr. Regan, do you have that document in front
3	of you? I believe, as Commissioner Edgar pointed out, I
4	believe it's Page 14 in Roman numerals.
5	THE WITNESS: If you'll give me a second. The
6	version that was just handed to me doesn't oh, here
7	it is. Well, I've got Attachment 1. Were you looking
8	for Attachment 3?
9	COMMISSIONER SKOP: No. I'm looking for
LO	Appendix 3.
11	COMMISSIONER EDGAR: Appendix 3. I'm sorry,
12	Commissioner. Towards the back, Appendix 3, after the
13	regular numbers it starts with the Roman numerals again.
14	THE WITNESS: It's not in this version.
15	(Pause.)
16	Schef found it for me.
17	COMMISSIONER EDGAR: Okay.
18	COMMISSIONER SKOP: So, Mr. Regan, are you now
19	at what is marked Appendix 3, Contract Prices, which
20	shows the confidential data?
21	THE WITNESS: Uh-huh.
22	COMMISSIONER SKOP: Are you on that page?
23	THE WITNESS: Yeah.
24	COMMISSIONER SKOP: Okay. Now you previously
25	stated that the dispatch cost of coal is approximately

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\$42 per megawatt, megawatt hour I guess. And the --

THE WITNESS: Subject to check.

COMMISSIONER SKOP: Subject to check. And that the biomass plant would be dispatched before coal because the cost of generation is lower than coal. I believe you just stated that; is that correct?

> THE WITNESS: Yes.

COMMISSIONER SKOP: Okay. So now without disclosing the confidential information on that page, if you would look at the non-fuel energy charge column or, I mean, row, the fixed O&M charge row and the variable O&M charge row, and those are the non-fuel energy charges before you get to fuel, would you agree that those charges are significantly above what you testified that's the dispatch cost of coal?

THE WITNESS: Those prices are irrelevant to the dispatch decision. Can I explain why?

**COMMISSIONER SKOP:** Okay. Please.

THE WITNESS: The way this contract is structured, most utilities are very familiar with so much a kilowatt month kind of a fixed capacity charge, and we did not want that. We wanted a performance So a very important part of this contract is how we determine what is the available capacity from the unit. So if 100 megawatts is available and we, we have

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the option of turning it off or dispatching it less than 100 megawatts, but for those 100 megawatts, as long as it's available under the contract, the non-fuel energy charges will still accrue, which are a sunk cost, and so the variable cost for the economic dispatch decision is the production cost, the fuel production cost.

commissioner skop: Okay. I'll accept that subject to check, noting that this is a firm energy price and doesn't reflect capacity. But I would also -- would you agree that if you have additional excess stranded capacity that's already been paid for by the ratepayers, that over and above that you're paying these energy charges irrespective -- it's like a take-or-pay contract; is that correct? You're paying for something that you wouldn't necessarily need because you already have it; is that correct?

THE WITNESS: That portion of the bill or the price, which does cover all the capital charges, the O&M charges and so on, could be characterized as take-or-pay, provided it's available.

COMMISSIONER SKOP: Okay. And subject to check, would you agree that those charges escalate on an annual basis?

THE WITNESS: No. Those, those charges are fixed for 30 years.

COMMISSIONER SKOP: I'll get back to that.

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THE WITNESS: There's a construction cost adjuster, which is that that number was fixed when we signed a contract May 7th. And there's an agreed upon formula that when a notice to commence proceeds, that there will be an adjustment based on the changes in the construction costs between here and there, and after that they're fixed for 30 years.

COMMISSIONER SKOP: Okay. I'll, I'll come back to that. I have not had a lot of time to review the contract. But in my preliminary review I did see an escalation provision that gave me a little bit of pause. But let me, let me go quickly, because, again, I want to give my colleagues an opportunity to ask questions.

You mentioned that on the basis of economic dispatch it would just boil down to the fuel charge. let's compare the cost of coal as delivered and the cost of fuel for this project as delivered. I know that there's no number for fuel charge because it's based on the fuel charge and a price adjuster. Is it correct --I think Commissioner Klement -- I mean, I'm sorry. said it wrong and I've got to, I've got to break myself. Commissioner Klement raised this issue at the public hearing about that, you know, GRU does not currently have a fuel contract in place. So I think the

Commissioner's concerns, and I'll let him elaborate, were that what happens if you get squeezed for fuel and the prices go up? So do we have a flavor on what per ton the expected biomass delivered cost would be in relation to coal, the difference?

THE WITNESS: If you're asking if we have a flavor, or are you asking what the flavor is?

understand because I don't, I don't see a number here in front of me. I could probably guestimate the as-delivered cost of coal, which has gone up somewhat in recent years. But what I'm trying to understand is if you're saying that the basis for economic dispatch lies solely on the cost of this variable fuel charge versus what you told me for \$42 is the dispatch cost of coal-fired generation, then I'm trying to understand and appreciate how significant that difference is.

THE WITNESS: I'm going to have to talk in generalities because of the confidentiality aspects of it.

**COMMISSIONER SKOP:** Okay.

THE WITNESS: If you go back to our fuel studies performed by IFAS through the University of Florida, what they did for us is they produced price distance curves under a wide range of circumstances.

And they modeled it using aerial satellite photo imagery because a lot of the survey data on what's being planted and not being planted is known to be very erroneous.

And they also used a, an algorithm that routed trucks, if you will, from various sources and modeled the cost of, of diesel and the trucks and all that kind of stuff, and they modeled it at a diesel price that was twice that of the current market and is easily twice that of the current market now.

So from that modeling we understand the underlying cost structures for the fuel, and from that we, we do have a view on, frankly, the grower -- except for the circumstances where there happens to be something, somebody cutting down pulpwood almost within a few miles of the plant, we could never afford to pay -- it wouldn't make any sense to pay the prices that growers get for roundwood or pulpwood or for chip and saw lumber. So we definitely are looking at the, the waste residuals and the other kinds of products that Mr. Levine from American -- from GREC LLC will discuss.

From that, and knowing the production costs, what we saw and what GREC was giving us as a target price, also the fact that the target price has something in it that we call gain sharing. In other words, if they beat that price, they keep a fraction of the gains,

and if they don't meet that price, they eat a part of the loss, if you will. We're, we were pretty comfortable that we could bring it in probably, you know, 10 or 15 percent, maybe 20 percent lower than coal. COMMISSIONER SKOP: Okay. Thank you. And with respect to my prior question --THE WITNESS: And I tried to make it clear that everything there was based on the work we did. 

commissioner skop: Okay. Thank you. With respect to my prior question, then I'll yield, I actually found on Page 19 what I, what I thought, and basically it was the nonfuel energy charge escalated to the time of construction commencement, and I think that was nonconfidential, is 2.5 percent per year that you had discussed in your prefiled testimony. So thank you, and I'll yield to my colleagues. Thank you, Madam Chair.

commissioner EDGAR: Commissioners, any
questions at this time? Commissioner Klement.

COMMISSIONER KLEMENT: Thank you, Madam Chair.

Mr. Regan, is it -- can you address Dr.

Bussing's assertions about the, what's the word,

combustibility cleanliness factor for burning this? He

asserted that it would not be, it would add to the

carbon load rather than reduce it.

the witness: Yes, I can. When you burn biomass, you're obviously going to make CO2. That's stipulated. However, qualitatively and recognized both by United States organizations and organizations internationally, there's a very big difference between going in the ground and taking carbon from the ground deep in the mineral deposits of fossil fuels and adding that to the budget of the atmosphere as opposed to the carbon that's circulating in the atmosphere.

And I can get pretty technical pretty quick, but the bottom line is you can think of it as the biomass -- and he was correct, we do live on a sandbar. Very little carbon stays in the soil. The biomass that falls over is going to rot and go into CO2 anyway. But it's biomass -- it's carbon that's cycling, which is why all of these -- I could give you the list of the acronyms of all the various organizations including an EPA notice of proposed rulemaking for treating CO2 as a pollutant. They've identified that biomass fuel, the CO2 from that would not be considered as a pollutant because it's not a net gain for the atmosphere. And so that's why biomass plants are considered to be carbon neutral. And in fact, you know, one of our conservative things that we've done in this is we're saying it's

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carbon neutral.

We have done the carbon balance studies on the, the diesel that would be used to move and to chip the stuff and all that, and it is a very small quantity compared to, for example, compared to coal, the fossil fuels used in producing and delivering this fuel are less than 4 percent that of burning coal.

Biomass is also considered in EPA's work that when it falls over and rots -- and by the way, the people that drove up here from Gainesville passed many, many piles of our future fuel that are rotting and producing methane, which is a very potent greenhouse gas. So they consider it to be typically I think in order, subject to check, 20 percent more potent than just straight CO2. But for all the work we're doing here, we're just calling it carbon neutral.

COMMISSIONER KLEMENT: Thank you. That's all, Madam.

COMMISSIONER EDGAR: Questions from staff.

MR. SAYLER: Yes. Thank you, Madam Chair.

## CROSS EXAMINATION

## BY MR. SAYLER:

Q. Earlier in your testimony you indicated that there was no need for the GREC project until 2023, but you also indicated that one of the benefits would be

that it would enhance reliability; is that correct?

A. Not exactly. What I said, there was no need for the unit strictly for capacity purposes until 2023. But there are other reasons for doing it, including reliability enhancements, not just for Deerhaven 2 but for our other units as well. It diversifies our fleet, and for the other benefits such as carbon reduction, fuel diversity, fuel supply security and so on.

Q. Okay. With regard to fuel diversity, if you'll look at the yellow handout, Page, the first page that has the pie graphs on it. The exhibit number is Exhibit Number 24. We're going to be referring to Page 1 of 8. And it has GRU's Fuel Mix as the title of the table at the top of the page.

A. Uh-huh.

Q. And this table and pie graph shows GRU's actual fuel mix for 2008 and its projected fuel mix for 2014 both with and without the GREC facility; is that correct?

A. The exhibit I'm looking at has three pie graphs that have 2008 I guess percentage of fuel by type to 2014. And with -- 2014 with and without resale. And the number in the upper left column under 2008 for nuclear is 4.8 percent, because mine doesn't have an exhibit number on it. Is that right?

- Q. Okay. Yes. You are on the -- we are on the same page.
  - A. Yes. Good.
- Q. Okay. And when we, when we're talking about these, these exhibits, when we say without resale, that means GREC or GRU is unable to sell 100 percent, or the 50 megawatts that they're planning or have assumed that they're selling; is that correct?
- A. Those were scenarios that we did production cost modeling for at the request of the PSC staff.
  - Q. All right.
- A. And when we gave you those results, we did not think we were very careful to caveat those results as we did not think they were plausible for us to assume that firm baseload capacity would have zero benefit in the State of Florida. However, we performed the work as requested.
- Q. All right. So in 2008, according to that middle pie graph, about 61 percent of GRU's fuel comes from coal, followed by 16 percent natural gas and approximately 14 percent from purchased power from Progress Energy; is that correct?
- A. That is, that is what the pie charts say, and that is in fact correct for 2008. But we had submitted a note to be appended to this exhibit of staff that we

were not aware was not appended. And it says that from 2004 through 2008, GRU's coal-fired generation provided an average of 68 percent of total system energy. Also during fiscal year 2009, coal-fired generation provided 33 percent, 33.6 percent of GRU energy purchases from the PEF PPA. The PEF PPA is a slice of the Progress

So we feel that the characterization of our burn for 2008, which was, as I said, a very bad year for Deerhaven 2, lots of outages, lots of expensive outages, that was the year that the price of gas spiked to \$14 on the spot market, \$14 a million Btu, I think I would suggest caution in interpreting anything, conclusions you draw from using strictly that number.

system including nuclear, coal and natural gas units.

Q. All right. Well, thank you for the clarification of that note.

In 2014, if GRU keeps all the output from the GREC facility and coal usage goes down to 50 percent and natural gas down to 5 percent, while purchased, while purchase from GREC increases to 37 percent of GRU's system energy needs; is that correct?

- A. I couldn't hear the last part of the question.
- Q. While the purchase from GREC increases to approximately 37 percent of GRU's system energy needs; is that correct?

A.	Ι	Did	you	say	that		you	ı're	asking	me	does	GREC
orovide	37	pei	ccent	of	our	ene	rgy	need	ds?			

- Q. No. I mean, just the pie chart there, 2014 without resale, coal usage goes down approximately to 50 percent, natural gas approximately to 5 percent, and the GREC facility increases to approximately 37 percent of GRU's system energy needs. It illustrates just the fuel diversity based upon the figures provided by GRU.
- A. Oh, are you looking at the resale or without resale?
  - Q. Without resale.
- A. That would be 36.9 percent. Subject to check, that seems reasonable for that particular case.
- Q. All right. So generally speaking, GREC could serve to replace purchased power as well as fossil fuels on GRU's system.
  - A. Yes.
- Q. All right. And so the choices faced by GRU in making the decision to pursue the GREC facility in 2013 is -- excuse me. Let me rephrase my question.

So the choices faced by GRU are to add GREC in 2013 for the purposes of fuel diversity and economic benefits or to wait and add capacity in 2023 to add reserve margin.

A. Your, your answer was incomplete. The

decision to add it now in anticipation -- and one of the benefits of adding it now, one of the benefits is that we avoid having to add something in 2023. The benefits for adding it now are system reliability, system integrity and meeting the carbon policy, and as a potential hedge against any environmental regulations related to carbon dioxide control or renewable portfolio standard.

Q. All right. Thank you for the more complete answer.

If you will turn to the Exhibit Number 25, it has the blue cover sheet, and that's Exhibit 25. The top of the chart states monthly rate impact per 1,200 kilowatt hour. I would also like to know that it's --

- A. Wait. Is that in -- I'm not sure I have that one. Oh. Oh, yeah, I have it over here. This is that one-pager. Oh, okay. Thank you. I was just confused.
- Q. We're dealing with lots of paper, so it's easy to get things shuffled.
  - A. Yeah.

Q. I just want to note that this illustrative pie graph is similar to the values presented on Page 7 of 8 and 8 of 8 in staff's Exhibit 24. Just -- staff felt it was easier to see a graphic versus look at a chart full of numbers.

1	A. Mr. Bachmeier and myself have reviewed this
2	graph and checked the numbers, and we agree with what
3	you say.
4	Q. All right. Thank you. Would you agree that
5	this chart shows the rate impact of the GREC project
6	both with and without the 50 megawatt resale and both
7	with and without carbon regulation; is that correct?
8	A. I no, it's not correct.
9	Q. Please
10	A. Because the rate impact, if we were not able
11	to sell long-term fixed contracts, would have a market
12	value much greater than zero.
13	Q. Okay.
14	A. And the assumptions in this graph is that that
15	would not occur.
16	Q. Okay. Would you agree that the best-case
17	scenario for GRU customers for a monthly rate impact
18	would be resale of the 50 megawatts at full price and
19	carbon regulation as illustrated by the yellow line on
20	this graphic?
21	A. That's the most favorable scenario put on to
22	this graphic.
23	Q. Yes.
24	A. More favorable scenarios might include if gas

prices go anywhere close to the production cost of oil

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shale methane gas.

- Q. Okay. And the worst-case scenario, at this time based upon the figures that GRU provided the worst-case scenario for GRU customers from a rate impact perspective would be the no carbon regulation and no resale scenario as illustrated by the pink line on that chart or the upper line; is that correct?
- A. That is the worst-case scenario on this graph.
  Yes.
- Q. And according to GRU's best-case scenario, with carbon regulation and full resale starting in 2014, the residential bill impact would be \$5.97 per month; is that correct?
- A. Without any other mitigating factors that might occur, that is correct.
- Q. Similarly, the worst-case scenario for GRU customers, assuming no carbon regulation and no resale starting in 2014, the residential bill impact would be \$27.03 per month.
- A. By the way, this is all based on a 1,200-kilowatt hour bill.
  - Q. A 1,200-kilowatt hour bill. Yes, sir.
- A. And all these numbers are relative to a 1,200-kilowatt hour bill. Our average customer uses 831. So, you know, I have to -- I can't agree that

these are what our typical customer would see.

Q. Yes, sir.

- A. And I believe that's what you were asking me, if that's the bill a typical customer would see.
- Q. Right. The 1,200-kilowatt hour month is kind of the Florida average for kilowatt hours and it's something that our Commission is used to discussing or understanding average kilowatt hour bills. But we also understand that the average kilowatt hour usage, as I believe you testified earlier, is about eight hundred and -- what was it, 37 or 31 kilowatt hours a month?
- A. Yeah. And in my job as Strategic Planning
  Director I've been doing bill comparisons since 1989,
  and statewide we all compare the bills on a thousand and
  continue to compare them on a thousand. The first time
  I heard that 1,200 was the new statewide average for
  bill comparisons was when the interrogatories came back.

COMMISSIONER EDGAR: Mr. Sayler, we're going to ask you to pause for a moment.

Commissioner Skop.

COMMISSIONER SKOP: Thank you, Madam Chair.

Just a question of staff. How hard would it be to regenerate this graph using GRU's average rate?

Is it based on interrogatory response data or is that something that staff could quickly adjust?

MR. SAYLER: We can do a general number and an approximate. But it -- for -- it might be better to do that as a late-filed exhibit. We can adjust it. It's just assuming that it's a straight line, it's a proportional decrease.

Would that be a proportional decrease if we were to generate that or are there other factors involved in computing the number? Because this was based on an interrogatory response that we received from GRU.

**COMMISSIONER EDGAR:** Mr. Wright, do you have anything to add to that?

MR. WRIGHT: Not at this time. I was waiting
for my witness to respond since he's --

**COMMISSIONER EDGAR:** I thought he was looking to you, but maybe I was wrong.

THE WITNESS: I was -- I don't have my glasses on. I was scanning my eyes around.

As I understand, subject to check, I would agree that a proportionality would do. Because when we were asked to deal with the 1,200, we didn't model separately the customer service charge. We have several steps in our rates. We just used our average cost per kilowatt hour for the rate class, residential rate — well, for — and so I believe that you could just do it

by strictly taking 830 divided by 1,200 times these numbers.

COMMISSIONER SKOP: Very good. Thank you.

COMMISSIONER EDGAR: Commissioner, did -- I'm

sorry. I'm not sure where we left.

commissioner skop: I think it would be helpful. Actually I think this, this chart that staff prepared is a result of the interrogatory data. The graphical representation, I thought it would be -- I thought it's very helpful. I don't know what my colleagues think. But certainly if the concern from the witness that the 1,200-kilowatt hour representation is, is misleading and not accurate, then certainly adjusting it to reflect the average consumption and showing the proposed impact under the various scenarios provides a more realistic comparison of the data, and I'd be interested in seeing that before making a final decision.

MR. SAYLER: Madam Chairman, if -- with your pleasure, staff would like to ask for a late-filed exhibit just to illustrate that just so that we have clarity for the record, if the utility is willing to do that. Or, alternatively, staff can -- no. Never mind.

If the utility is willing to provide a late-filed exhibit based upon the same numbers that you

provided initially in response to Interrogatory 54. 1 COMMISSIONER EDGAR: Mr. Wright? 2 THE WITNESS: We, we would be glad to do that. 3 Thank you for the opportunity. 4 MR. WRIGHT: My witness took care of it. 5 6 Thank you. 7 COMMISSIONER EDGAR: Commissioner. COMMISSIONER SKOP: Thank you, Madam Chair. 8 Mr. Regan, I thought, if I heard you 9 correctly, and this may be something staff could do if 10 11 they based it on the initial interrogatory response data and it was based on 1,200, and I think just applying the 12 simply ratio that you mentioned, the 831 or whatever the 13 14 average consumption is divided by 1,200 times each data point on that would generate the new curve without the 15 additional need for a late-filed. So is that something 16 staff could do internally just by using the ratio? 17 MR. SAYLER: Yes, Commissioner. 18 COMMISSIONER SKOP: Okay. I thought that's 19 20 what Mr. Regan offered, and so that may avoid the need 21 for the late-filed altogether. So thank you. 22 THE WITNESS: We're here at your pleasure. 23 **COMMISSIONER EDGAR:** So is that a withdrawal 24 of the request for --25 COMMISSIONER SKOP: I think it's a withdrawal

of the request.

COMMISSIONER EDGAR: Okay. I just wanted -COMMISSIONER SKOP: I think internally they
can rerun the numbers and print out a new graph and --

commissioner edgar: But yet if that's something that's going to be considered maybe clearer to actually have it for everybody and have it entered in and labeled in case there is, you know, at decision-making time a desire to refer to it, it's just

COMMISSIONER SKOP: I'll yield, yield to the Chair.

commissioner edgar: Okay. I'm thinking procedurally that may be, may be better, Mr. Wright, if indeed you're comfortable. We do try to avoid late-filed, but occasionally it is the best mechanism.

MR. WRIGHT: Yes, ma'am. I agree with, with your comments, that I think for purposes of addressing this issue in possibly briefs that, that it would be helpful to have this identified as a separate exhibit.

commissioner edgar: Okay. Then we will mark as to be Late-Filed Exhibit 31 to be provided by staff and, of course, distributed appropriately. And an estimate as to when that would be available to come in.

MR. SAYLER: Staff --

MS. BROWN: Madam Chairman, if I might 1 intervene, we would feel more comfortable if GRU 2 calculated this and provided it to us. 3 COMMISSIONER EDGAR: That, you know, upon 4 further reflection, I think that is a superior 5 6 suggestion. Mr. Wright, can you accommodate? 7 MR. WRIGHT: Yes, ma'am. 8 COMMISSIONER EDGAR: Okay. Then to be 9 provided by GRU, Late-Filed Exhibit 31, monthly rate 10 impact per average kilowatt hour bill. Is that what 11 12 we're talking about? 13 MR. SAYLER: Yes, ma'am. COMMISSIONER EDGAR: Then that's what we'll 14 15 label it. (Late-Filed Exhibit 31 identified for the record.) 16 17 Okay. Mr. Sayler. MR. SAYLER: All right. Thank you. And let 18 19 me get my pages reorganized. 20 COMMISSIONER EDGAR: Sure. 21 BY MR. SAYLER: With regard to the purchased power agreement 22 between GRU and GREC LLC, does the purchased power 23 agreement or PPA between GRU and the LLC discuss the 24 25 purchase of environmental attributes such as renewable

energy credits or RECs, carbon offsets and other items? 1 2 Α. Yes. It discusses the ownership. Excuse me. 3 Yes. It makes it very clear that based on the Α. 4 price, in consideration of the prices in here, we get 5 all of those attributes. 6 7 Q. Under the current version of the Waxman-Markey Bill passed by the U.S. House of Representatives, would 8 GRU be required to meet a renewable portfolio standard 9 10 or RPS? I believe under the current incarnation of 11 A. 12 that we would be exempt. 13 Okay. And with regard -- backing up again to those environmental attributes or RECs obtained from the 14 GREC facility, those will, the ownership will be 15 16 retained by GRU; is that correct? 17 Α. That's true. What does GRU at this time plan to do with 18 these environmental attributes that it obtains from the 19 20 GREC facility? 21 It depends on if any kind of market is 22 developed, for example, for renewable energy credits, 23 they would have some market value. And then it depends on the City Commission's policies on whether they want 24 25 to retire the credits.

But, frankly, under the Waxman-Markey, I'm thinking about sulfur dioxide, we need those very desperately because of our liability by virtue of having -- coal is a pretty big piece of our generation pie.

So the value, that would be a value to our customers by having avoided, having to buy carbon offsets or install carbon capture and sequestration or something like that.

- Q. All right. Thank you. Also regarding the PPA signed with the GREC LLC, can you take a moment and describe some of the protections contained within that contract for GRU's customers in the event of either a default or a nonperformance by GREC LLC?
  - A. The --
- Q. So long as they're not confidential. My apologies.
- A. If they go into default, and there are very specific triggers for that, the contract disappears and that unit no longer has a place to put energy. They cannot put it anywhere else except to us, which means that now we're probably talking to the banker and who's going to manage it going into receivership? That's a pretty dire circumstance. There are some bond and some financial things that go with that. The -- we would

then be looking around for replacement power at that 1 2 time. 3 Thank you. Q. It would be much like a unit of ours catching Α. 4 fire. It can happen. 5 6 Q. And let's hope not. 7 A. Let's hope not. MR. SAYLER: I'm just taking a look at some of 8 our questions to see if some of them have been 9 previously addressed. If you'll give me a moment. 10 COMMISSIONER EDGAR: Take a moment. 11 BY MR. SAYLER: 12 13 Referring, Mr. Regan, if you'll refer back to the yellow cover sheeted exhibit, Exhibit 24, if you 14 will turn to Page 4 of 8, and at the top of that page it 15 16 is entitled Cumulative Total Cost Analysis. 17 Cumulative Total Cost Analysis. Α. Uh-huh. 18 Ο. And mine doesn't have an exhibit number on it. 19 A. Well, maybe it does on the front. Oh. 20 21 There is a blank left at the top right-hand Q. 22 portion where we generally write it in because sometimes 23 exhibits get moved in at various portions of the --24 If the upper left-hand resale number is A. 25 225,616, then that's probably the one I've got.

- Q. We're on the same page again.
- A. Okay.
- Q. As part of GRU's analysis first, staff has asked that GRU compare the system cost of adding the GREC facility in 2013 with no new construction until 2023; is that correct?
  - A. Correct.
- Q. And that would be illustrated by the two or actually four right-hand columns where it talks about the difference from no new construction that shows some red values that eventually sometimes in some of the columns they change to black; is that right?
  - A. Correct.
- Q. All right. And for purposes of this analysis you assumed no additional generation beyond 2023 for any of the scenarios; is that correct?
- A. Because we were going to have unserved energy we used a proxy for the market value of capacity and energy.
- Q. And when you compared -- when compared to no new construction or, excuse me, no construction, does your analysis show any savings by 2023 for GRU under any of the scenarios either with or without resale or with or without carbon regulation?
  - A. These are cumulative net present value

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numbers. I'm not sure that you can call them savings, which is sort of a cash flow number. Are you -- if -- could you rephrase the question? The gaps are certainly growing smaller.

- Q. Would the total system cost be greater?
- A. In the, on this table the scenarios where the numbers are red and in brackets, the cost is greater than the no construction cost case.
- Q. All right. And according to this table, carbon regulation, with carbon regulation and resale of half of the GREC capacity, the GREC project will show savings starting in 2027; is that correct?
  - A. That's correct.
- Q. However, according to the cumulative total cost analysis, whether there is carbon regulation or resale, there will be no savings associated with the GREC project for at least the first ten years.
- A. I would like to point out that the, the issue of cost-effectiveness, this, this analysis reflects basically an internal rate of return analysis. It's the, it's the merit of the cost-effectiveness. It is not a measure of whether or not it is cost-effective. What would be a more appropriate measure of whether or not it's cost-effective would be the levelized cost analysis we've given you or a net present value

1 difference.

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Q. All right. Thank you for your time and for answering our questions. That concludes staff's questions for you, Mr. Regan.

COMMISSIONER EDGAR: Thank you.

Commissioners? Commissioner Argenziano.

commissioner argenziano: Thank you. And I'm not sure if you're the proper person to ask some of the questions, and it's just a few because most of them have been asked.

When I look at the statute, what my job is to be here is I look under 403.502, and if there's a need, the need determination of course to meet the need for electrical energy, there's environmental impacts that I need to ask staff a question on that before I go further.

environmental questions that were asked in the, to look at in the statute, and have we heard from DEP, or does DEP wait until after we make the need determination?

And if so, how do we make a need determination that the statute asks us to look at environmental impacts if we don't hear from DEP first, or does that come down the line?

COMMISSIONER EDGAR: Ms. Helton.

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MS. HELTON: And I hope somebody will correct 1 me if I make a misstatement. My understanding of the 2 need determination process for the Public Service 3 Commission is that we're acting under Statute 403.519. 4 And in subsection --5 6 **COMMISSIONER EDGAR:** (3). 7 COMMISSIONER ARGENZIANO: (3). MS. HELTON: (3). Thank you. I'm having a 8 9 hard time adjusting my eyes here. It states the factors that the Commission shall, I think it says shall 10 consider -- in making this -- "In making its 11 determination, the Commission shall take into account 12 the need for electric system reliability and integrity, 13 14 the need for adequate electricity at a reasonable cost, 15 the need for fuel diversity and supply of reliability, 16 whether the proposed plant is the most cost-effective 17 alternative available, and whether renewable energy

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available."

COMMISSIONER ARGENZIANO: Okay. Ms. Helton, I read that.

> MS. HELTON: Okay. I'm sorry.

sources and technologies as well as conservation

measures are utilized to the extent reasonably

COMMISSIONER ARGENZIANO: And I know that part of it. I was looking at 403.502 under legislative

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intent and that's where I'm trying to get an answer to. 1 2 MS. HELTON: Okay. 3 COMMISSIONER EDGAR: Because of the way legislative intent is written it would say that we 4 include environmental. But I'm wondering if that means 5 6 that we shift only to 403.519, which says this is what 7 the Commission looks at, and we'll leave the rest of 8 this intent up to DEP. 9 MS. HELTON: That has always been my 10 understanding. 11 COMMISSIONER ARGENZIANO: Okay. 12 MS. HELTON: The purpose, as I understand it 13 for the Commission here, is to determine the need. 14 we send over our final order as the report that's required in this part of the, of Chapter 403, and our 15 16 goal is not to look at the environmental impact. COMMISSIONER ARGENZIANO: Okay. So we can't 17 18 look at the environmental. DEP will look at that 19 sometime down the line. 20 MS. HELTON: Yes, ma'am. 21 COMMISSIONER ARGENZIANO: Okay. Then going 22 to -- thank you, because I wanted to clarify that. 23 COMMISSIONER EDGAR: Commissioner, if I may. 24 I'm sorry. 25 COMMISSIONER ARGENZIANO: Please.

experience, there have been some times in the past where environmental considerations have been discussed in part of the record looking under the cost-effectiveness criteria because there have been times when addressing environmental issues, the cost factors kind of come into that for the overall cost which comes into that cost-effectiveness criteria. But that is, in my experience it's related but a little different, if I — hopefully I'm being somewhat clear — for the cost of it.

And as to the timing, often that, that is partially determined, determined by the applicant, but at times that DEP, for their role under the statutes and what we do, sometimes they happen on parallel tracks and sometimes they are done consecutively.

Thank you. Well, that answers that question. And in looking at the Section 403.519 in regards to reliability and integrity, reasonable cost, diversity, the supply reliability, I'm sorry, the cost-effectiveness, I guess the question I had asked previously about sustainability, two things. One, can you, can you tell me how you determined the need for the future electric? That gives me an idea the needs for the future electric

capacity that we're talking about so I have an idea. Is it increased population to the area, is it decreasing population, more use? Because it seems that the consumption issue is very well taken care of. It seems to be the lowest in the state, which is kind of admirable, I would say, in looking at a lot of the consumption throughout the state. I think you've done a good job there. But how did you determine the need?

THE WITNESS: We forecast our capacity requirements? Are you asking how we forecasts our capacity requirements?

**COMMISSIONER ARGENZIANO:** In other words, did you take into consideration declining populations in the state of Florida?

THE WITNESS: Yes. We used an econometric model. We used the Florida business and economic -BEBR -- anyway, the BEBR at the University of Florida,
they generate the population forecasts for our county.
We rely on those. And then the econometric model is fit with -- we subscribe to data sources that give us projections of disposable income, household size, and there's a factor in there for price, so we actually have an empirical price elasticity in the models.

So from that we forecast what we consider to be the effect of our previous programs, but not our

future programs, conservation programs. And then we subtract the effect or projected effects of our future programs from that forecast, both for the energy and the load.

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What we don't do -- we do take into account price elasticity when we do the forward projection of our price, so that gets factored into it. So those things all kind of work together to get to our number. To meet our targets, that 831-kilowatt hours a month will be going down.

COMMISSIONER ARGENZIANO: And I imagine -- I think several years ago most cities in the state of Florida were rising population-wise and the consumption of energy was rising at a much faster rate. Has the rate slowed down but still inclining? Is that what you are finding? According to the University of Florida, I think they have just reworked a study from a year ago or so.

THE WITNESS: The combination of extremely high fuel prices in 2008 and the economy really made a big difference in our loads as you can see in our numbers here. Anecdotally, it has affected every company in Florida. And so we believe we have reset our forecasts based on the latest and greatest information, and they are about — they are the best that can be

1 done.

**COMMISSIONER ARGENZIANO:** But resetting the forecasts, are they lower than what was originally perceived to accommodate the decline?

THE WITNESS: Oh, yes.

COMMISSIONER ARGENZIANO: Okay. So they are lower, but there is still a need, according to GRU.

THE WITNESS: Even though it is so low, and the growth rate has been cut to almost nothing, if you look at that curve, it is pretty flat. What is really driving the need is the fact that we have these units that are just going to fall apart.

## COMMISSIONER ARGENZIANO: And --

THE WITNESS: At some point or another, they can't last forever. The capacity need. Now, there are other needs.

COMMISSIONER ARGENZIANO: Gotcha. And to reliability, which the statute asks that I look at, I look at sustainability as reliability, too, because without sustaining the source it's not reliable. And as I mentioned before, I had heard here in the presentation that biomass was not as sustainable, and could you help me on how GRU has figured out the sustainability of that.

THE WITNESS: There are several different

aspects of sustainability. One of them is, first of all, what is the resource base. And I mentioned earlier that we did not go back to the some of the Division of Forestry studies that were being touted. IFAS used aerial photography because we -- the people we are working with know who did not report. You know, which companies were not in that database and that kind of thing. So we didn't think that information was accurate to begin with. The second thing is we were looking at multiple fuel supply sources and not just forest waste. There is urban forestry, there's land-clearing activities, and there are other -- you know, this is not a confirmed number, it is anecdotal, but we were approached by the Marion County North Florida Thoroughbred Breeders Association. Keep in mind, this plant is going to use a million tons a year of biomass. They have 500,000 tons of pine shavings a year they are trying to figure out what to do with. But that's neither here nor there. We are relying on the studies that were done by IFAS.

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But then the City Commission and the Gainesville community, who is very environmentally concerned, said wait a minute, what about this business of nutrient depletion of the soil? Are you going to hurt the bugs and bunnies, I mean, all of those kinds of

issues. And based on that, one of the reasons why it took a year to negotiate this contract is that as minimum standards for the acquisition of this biomass there are very strict standards that have to be adhered to. Mr. Levin will be able to handle that in more detail, but they include, for example, that they are only going be taking materials from forests that were harvested pursuant to the best management practices as promulgated by the Division of Forestry. No stumps. Taking out stumps is very bad for soil horizons and erosion.

But to go a step further, recognizing that there are prohibitions about conversion of natural forests to plantations. There is a financial incentive program that we have created that is very similar to our solar feed-in tariff. The solar feed-in tariff is designed to be a market transforming technique. The technique we are using to promote better forest management practices, which in the long run we have heard actually improve forest productivity and wildlife values is if they get involved with some these organizations that have independent certifications. So we will be basically giving them a financial incentive to be involved in those independent certifications.

You know, we've talked to a lot of people.

Our fuels people go in the field with the people from GREC to talk to the suppliers. From the very beginning we want to make sure that we really felt comfortable that the fuel supplies were there. I don't know if its DEP, or somebody hired the Navigant Group -- was it the PSC or the DEP hired the Navigant Group that came up with, I think it was up in North Florida, 400 megawatts of sustainable economically feasible biomass; 1,000 megawatts of technically feasible. So, you know, that was -- there is an old saying, you know, no hoof, no horse. No fuel, no plant. So, boy, that was top on our list. So we really researched it pretty thoroughly.

And we are very proud of our forest stewardship program. It's the first one like it in the country where we are actually going to be incentivizing the producers. And the way that works is that if they get certified when they show up with their fuel at the door, they show their certificate and American Renewals will -- in this case, GREC will pay the premium and will make it up to them.

**COMMISSIONER ARGENZIANO:** Just two others question, I think. Are you in competition, then, for supplies with the paper mills?

THE WITNESS: Absolutely. If you go back to our studies, you will see that that was taken into

account plus other generating units. We had assumed another 120 megawatts of generating units in our region and looked at the effect on that. But what was interesting is that the -- there were several different scenarios. There is a point where the distance from the plant is more important. You're not competitive any longer because the transportation cost is probably the biggest part of the cost.

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COMMISSIONER ARGENZIANO: Well, that's my concern as far as the land mass. If the bulk of your fuel comes from the -- is it the pine forests?

what they call long-leaf pine restoration going on, and there is a big program by the Division of Forestry to remove woody material from the forests for fire -- to reduce the risk, of fire protection. One of the unique attributes that we liked -- by the way, forest stewardship is one of the ranking criteria under environmental -- that we like about Nacogdoches is the contract structures that recognize we are not locking into -- they're calls and puts spppp, but there are large opportunity fuels in our region. For example, from forest fires. Beetles. Huge vast acreages of -- I mean, tonnage that doesn't even come close to our plant that just gets wasted.

that. That helps me. But I was under the impression was you couldn't grow a pine forest quick enough to supply. And maybe just your plant, not a problem, but between the paper mills and other plants, I just wondered if sustainability — and I guess if you have long-term contracts that helps to ensure. But I just didn't know if there were other avenues, like you are sitting in Marion County you have the Breeders Association, I think you said, was another source. Is that a reliable source?

THE WITNESS: A potential source. Oh, yes. I mean, they have been doing that for years and years. By the way, I'm an environmental engineer and my speciality was system ecology. The growth cycle of trees and those kinds of things have been taken into account.

commissioner argenziano: Because that is
really carbon neutral, when you are talking about carbon
neutral --

THE WITNESS: Absolutely, yes.

commissioner argenziano: -- is being able to
replant as fast as you --

THE WITNESS: Right. In fact, that is one of the requirements in the fuel specifications. If you want to continue to be a supplier, you will replant

within a certain number of years. Again, Mr. Levine 1 will be able to address that. 2 COMMISSIONER ARGENZIANO: Thank you very much. 3 COMMISSIONER EDGAR: Commissioners, anything 4 further? 5 6 Commissioner Skop. COMMISSIONER SKOP: Thank you, Madam Chair. Mr. Regan, just a few more questions. I guess 8 starting with the blue sheet and the graph that staff 9 prepared on the monthly rate impact for 1200-kilowatt 10 11 hours. I have applied the ratio based on the average consumption versus the 1200 to what I believe, subject 12 to check, to be the first pink box for 2014 as well as 13 the first yellow triangle for 2014. And subject to 14 15 check, would you agree that the potential bill impact 16 for the best case, which would be regulated CO2 and the resale, would be approximately \$5 per month to the 17

average ratepayer?

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THE WITNESS: Subject to check, that looks like about six bucks sitting there. I guess we could dig out the tables, but it's going to bring it down probably just below the five line, don't you think?

COMMISSIONER SKOP: Okay. Somewhere real close to five, maybe. And also for the first pink box, which is the base case assuming no resale of the

capacity that would be added, applying the ratio for
average consumption would be -- the approximate bill
impact to the average ratepayer, subject to check, would
be approximately \$18.70 per month?

THE WITNESS: That seems reasonable, subject
to check.

COMMISSIONER SKOP: All right. And then
briefly just to speak to the yellow group of sheets.

COMMISSIONER SKOP: All right. And then briefly just to speak to the yellow group of sheets.

Actually, if I had looked at this a little bit more closely I wouldn't have had to do my math. On Page 2, which shows the reserve margin expressed as a percentage, and I think, subject to check, on that page, and this is a summer reserve margin for 2010, the current reserve margin is about 62 percent, 62.4 percent. So you would agree with that number, right?

THE WITNESS: I would agree with that number.

COMMISSIONER ARGENZIANO: Okay. And then in 2022, without adding any -- with no new construction, or not adding the plant, the reserve margin would still be 22.6 percent, is that correct?

THE WITNESS: That's correct.

COMMISSIONER SKOP: Okay. All right. And then on Page 5 it shows basically the existing generating units with and without the resale. The Deer

Haven 1 unit, is that basically a steam-fired combined cycle type of plant? It says fuel, natural gas, but the Unit ST, so I'm trying to get a better understanding. I know Kelly is a combined cycle one, but I'm trying to figure out what the Deer Haven unit might be.

THE WITNESS: Deer Haven 1 is the unit where the gas is boiled in a boiler with water walls and then the steam runs a steam-driven. So it's not a combined cycle.

**COMMISSIONER SKOP:** Okay. So just basically a normal boiler?

THE WITNESS: Yes.

commissioner skop: So if you look at the last table at the bottom of that page, no new construction until 2023. For Deer Haven 1 and J. R. Kelly, no relation to J. R., which is a combined cycle plant, you can see that the capacity factors of both of those units are in the low to mid 20s, is that correct?

THE WITNESS: Yes. Can I point out that the Kelly plant has a number of different units, and so the CC-1 is a different unit than the other ones. Something you said, maybe we need to clarify that. Yes, it looks like it's going up to the 20 --

COMMISSIONER SKOP: I guess what I'm trying to illustrate is by adding the plant it looks to me, just

from inspection, that the capacity factor or the utilization of the Deer Haven 1 and the J. R. Kelly combined cycle unit are going to go significantly down from what they would be run at without the new unit.

THE WITNESS: Right. Therefore reducing fossil fuels reducing carbon.

commissioner skop: Okay. But doesn't that strand, in a sense, existing generating assets, that is a stranded investment because it's not being utilized absent selling off electricity from those units?

THE WITNESS: That's correct. But, again, like I said, there is a number of different management options that at this time we didn't try to quantify for this proceeding.

COMMISSIONER SKOP: Okay. And then I'll get to that in a moment. Just two more questions, Madam Chairman. On Page 8 of 8 of that document it shows the fuel price assumptions. Do we have an unredacted version of this specific sheet showing the biomass costs?

MR. SAYLER: No, we don't have the specific sheet, but we do have the values.

commissioner skop: Oh, you do have the values? Is it possible to look at those briefly? And I'll go to my final question. Mr. Kelly (sic), on Page

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19 of your prefiled testimony, you talk about the economic benefits to the local community as a result of proceeding forward with the proposed plant. And can you briefly discuss those.

THE WITNESS: Are you talking about the section between Lines 9 and 16?

COMMISSIONER SKOP: Yes, sir.

that GREC will create jobs during the construction of the facility and it will also create long-term jobs to supply the plant. The number of 44 comes from the staffing and management plan of the GREC, LLC Group. The additional jobs, which when we applied a number developed by the National Renewable Energy Laboratory came up to 490 jobs, by the way, are jobs that will be working in the forestry industry. They will be foresters, they will be timber surveyors, they will be people driving root rakes. There will be people running the chippers and people driving the trucks. And so that's what those jobs represent. And all of those employees are expected to live in our immediate region of North Central Florida.

commissioner skop: And to that point, I recognize that the proposed plant would provide substantial economic benefits to Alachua County

and the surrounding community, so it would be a plant of regional significance. I think what I'm struggling with is that often, pursuant to statute, we don't -- the Commission doesn't get to or have the discretion to consider all of those benefits. We have to look at the statutory criteria. So I'm trying to better match how the criteria that we base need determinations on can be met. Certainly we have to look at the costs and the reliability and integrity and the need for diversity and supply reliability, but also whether it is the most cost-effective option.

What steps, in light of some of the concerns that I have brought forth, typically being the lack of existing contracts to protect the ratepayer, what steps is GRU taking to protect its ratepayers? Because currently it is asking to build, or permission to build a 100-megawatt biomass plant. But, again, GRU and its ratepayers are obligated to pay for all of that capacity. So unless they sell it or take other actions to sell its intermediate and peaking generation, which apparently hasn't been done yet, as well as lock up a fuel contract, what is being done to mitigate that potential risk to the ratepayer, because it seems like a lot of risk is being shifted to the ratepayer here?

THE WITNESS: If you go back to your graph,

whether or not you adjust it, I would prefer to use your adjusted numbers, that's an index or an indicator of risk. And what was a very profound experience for me was when we sat down and talked to each of the Commissioners individually, as we are want to do, and show them the range of effects, they understand that GREC is not adding risk, GREC is taking away risk. example, just the price moves in gas where we went from about -- we almost had 70 mills on our fuel adjustment, and we went from about 40 to 70 mills on our fuel adjustment like that. A huge risk. When we had to modify the coal plant to put on the scrubbers -- the equipment we had to put on it, the SCR scrubbers and bag house, and all the things that go with that, that was a 15 percent rate increase right there. And then when you look at the kinds of numbers that third-party people are producing for the cost of the risk of carbon constraint, these costs look small. So this is -- GREC is a play to reduce risk.

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You know, in going back to your question about -- you were saying that you couldn't really consider the things in my testimony on Page 19. Well, you know, in economic theory cost-effectiveness is the weighing of costs and benefits. And this really, I think, highlights why you are going to see

municipalities doing different things than investor-owned utilities. This proposal would make no sense for an investor-owned utility because they don't own it. They don't get a rate of return. Why would they do this? The feed-in tariff makes no sense for an investor-owned utility, yet you will see municipalities doing these kinds of things because their idea of cost/benefit goes to a little broader definition of public welfare. I don't think that definition of welfare is actually out of your scope.

commissioner skop: Based on the excess capacity and not having an actual need for additional generation until 2023, but recognizing the intangibles in terms of wanting to reduce carbon and trying to stay ahead of the curve, effectively is this request asking consumers to pay more now in anticipation of future benefits that are yet to be quantified?

THE WITNESS: It's asking our customers to say invest now for something that we're going to use for 30 years.

COMMISSIONER SKOP: Just one final question. I don't know if staff -- the sheet that you had just handed out, is it possible to get Mr. Regan a copy of that, the thicker packet, and also to his counsel.

MR. SAYLER: Yes, Commissioner.

1	COMMISSIONER SKOP: It's marked as 090451-EM,
2	it's a confidential document, Part 2 of 2. And the
3	Bates number is 10127.
4	THE WITNESS: Mine says 9 of 11. Does yours
5	Oh, that's
6	COMMISSIONER EDGAR: That's the number of
7	copies.
8	THE WITNESS: Okay.
9	COMMISSIONER SKOP: I'm sorry. I'm looking at
10	Bates number this document has got so many numbers on
11	it, but the Bates number at the bottom right, 10127.
12	THE WITNESS: Okay.
13	COMMISSIONER SKOP: Do you have that document?
14	It's a thick one.
15	THE WITNESS: I do.
16	COMMISSIONER SKOP: Okay. And it's Part 2 of
17	2. It's the thicker package.
18	THE WITNESS: Yes.
19	COMMISSIONER SKOP: Okay. And, again, this
20	data is confidential, so I can't speak specifically to
21	it, but do you see the column entitled fuel rate in
22	dollars per megawatt hour?
23	COMMISSIONER EDGAR: The fourth column over.
24	COMMISSIONER SKOP: Thank you.
25	THE WITNESS: This one seems to be cents per

kilowatt hour. 1 COMMISSIONER SKOP: And dollars per megawatt 2 hour. It's a fuel rate, it is the fourth column over. 3 The title is entitled fuel rate. 4 MR. WRIGHT: Madam Chairman. 5 COMMISSIONER EDGAR: Yes, sir. 6 MR. WRIGHT: Thank you. I apologize, but I 7 got a step behind. Can I please be advised where we 8 9 are? COMMISSIONER EDGAR: Where we are? 10 MR. WRIGHT: Yes. 11 COMMISSIONER EDGAR: I will try. And 12 Commissioner Skop will tell me if I've got it wrong. 13 14 The most recent document in the red folder, okay, it has two pieces, the thicker document, first page, and I 15 16 believe we are looking at the fourth column from the 17 left. 18 MR. WRIGHT: Thank you. COMMISSIONER EDGAR: You're welcome. 19 MR. WRIGHT: Thank you. The documents bear 20 the same Bates number, and I was still on the first one. 21 22 Thank you. COMMISSIONER EDGAR: I just wanted to let 23 24 Commissioner Skop know I really was listening. 25 **COMMISSIONER SKOP:** Thank you. I appreciate

the column counting, that was a better way to do it. 1 Do you see that, Mr. Regan? 2 THE WITNESS: I do. 3 COMMISSIONER SKOP: Okay. In terms of the 4 fuel rate, I think that when we had our previous 5 discussion you indicated that economic dispatch as it 6 pertains to the biomass unit would be determinative of 7 the fuel cost on a dollar per megawatt hour basis, is 8 9 that correct? THE WITNESS: Right. And the indicative 10 number for coal I was giving you was for 2009. 11 COMMISSIONER SKOP: Okay. Is there a --12 THE WITNESS: This goes a long way to answer 13 14 your question very explicitly. COMMISSIONER SKOP: Okay. That's what I was 15 16 getting to, because I'm looking at the escalation of those numbers in that column in estimation of what 17 18 coal-fired generation or dispatch would be on a dollar per megawatt hour basis, and I'm trying to harmonize the 19 statement that this would be the most economically 20 21 dispatched unit over a coal-fired absent pending carbon 22 legislation, just as it exists today. 23 THE WITNESS: Well, this is the GREC price. 24 I believe there's a coal price in here somewhere. COMMISSIONER SKOP: Yes, let me find that real 25

quick. Thank you.

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Staff, are you aware of a specific Bates page on that?

THE WITNESS: Give me a second to figure this out.

MR. SAYLER: We're looking.

If you look at the top left-hand corner of the page -- well, actually, if you look at the top right-hand corner of Page 81 of 118, and my understanding is the fuel rate is in MBtu.

COMMISSIONER SKOP: I think that -- is that for a proposed type of unit, because I see 125-megawatt type. I don't believe that's confidential, but a pulverized coal unit, so is that --

MR. SAYLER: It's one of the alternatives that they provided. They did a levelized cost analysis of coal/gas, and I believe that's one of the units that they did the levelized cost for.

COMMISSIONER SKOP: Let's try and have staff take a look at that in terms of the economic dispatch. But, again, that's probably not an apple-to-apple comparison, and certainly not the one that would, based on the numbers, go in favor of the dispatch costs. So I just wanted to thank you, Mr. Regan. And no further questions.

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THE WITNESS: Okay.

**COMMISSIONER ARGENZIANO:** Madam Chair.

COMMISSIONER EDGAR: Commissioner Argenziano.

COMMISSIONER ARGENZIANO: One last question, because we had a question before that was asked of us to ask, and it's a good question. So had GRU looked into retrofitting the combustion turbines with the jet gas units that the gentleman had spoke of, that Mr. --

THE WITNESS: To converting the existing gas units to combined cycle? We actually did, and that led to the decision to convert the J. R. Kelly Unit 8 to a combined cycle unit because of the availability of gas at the Kelly plant site downtown and the constraints of the gas supply and the cost of that, of upgrading the pipeline to the area.

COMMISSIONER ARGENZIANO: Have you found another scenario that you may have examined to be more cost-effective than the one you chose?

THE WITNESS: Once we were directed to pursue renewable energy, we had been beating the bushes on all kinds of technologies, integrated gasification, you know, plasma arch, digesters, every kind of thing, but when it came to renewable energy, we feel that this particular plant is admirably suited. A bubbling boiler design is admirably suited to high moisture content

material of uneven sizes throughout the world it has been shown. And one of the things that made it come through the rankings fairly well in the first go-round is that it is basically very robustly designed, and the staff that we had reviewing it have actually operated biomass plants in the past.

COMMISSIONER ARGENZIANO: Thank you.

COMMISSIONER EDGAR: Commissioner Skop.

COMMISSIONER SKOP: Thank you, Madam Chair.

Mr. Regan, just one final question. As I understand it, GRU is -- again, the head of GRU is the general manager, is that correct, and ultimately they report to the City Commission as a whole?

THE WITNESS: The general manager reports -- he is an at-will employee of the City Commission.

commissioner skop: Okay. I guess with respect to the proposed project, again, some of the concern that I have articulated -- and, again, this is not the decisional phase, but, I think that, you know, we have heard from consumers that had similar concerns, and I think Commissioner Argenziano just brought up a question. Again, if the proposed project were to be approved in light of the concerns that have been raised, would it be incumbent upon GRU as well as the City Commission that operates essentially as the board of

directors of GRU to mitigate any proposed risk to the ratepayers by virtue of the fact that there are some significant contracts that are not yet in place?

I mean, ultimately, again, we're asking for approval, and lot of things have not been definitized, so that represents, in my view, risk to the ratepayer. That risk is being shifted to the ratepayer irrespective of if we don't sell the electricity or the excess capacity who pays, the ratepayer. So ultimately, if the Commission is being asked to approve a project and all the details of the proposed project are not definitized sufficiently, then that incremental risk is beyond our ability to protect the ratepayers on a forward-going basis.

So, again, ultimately would you acknowledge that that risk would have to be mitigated by GRU if not by the City Commission effectively functioning as the board of directors of GRU at some point in the future?

THE WITNESS: For the purposes of answering your question, there are things — there may be things we haven't thought of to mitigate risk, and any ideas are welcomed. And the City Commission has a great deal of flexibility in setting rates and general transfer levels which, in essence, manage that risk that you are talking about.

COMMISSIONER SKOP: Okay. Well, I know at least from some of the discussions that have come up, you know, before my joining the Commission, again, the transfer fund is very important for the City.

THE WITNESS: Absolutely.

mitigating that risk, I could see one or two options.

Either you pass the cost onto the ratepayer or you dig
into the general revenue fund, which is not a really
good thing as far as the City's budget is concerned.

So, again, what I'm trying to emphasize here is my view of the perceived risk is the fact that we are being asked to approve a project where you don't have a definitized fuel contract on a long-term basis, and you don't have firm contracts in place to sell either the — half of the portion of the proposed plant or any of your existing excess capacity. And a lot of — you know, having contracts in place would go a long way towards mitigating that risk.

And I don't think we can condition approval on that, or maybe we could. But, again, those are things that, you know, once we approve or disapprove a project as the exclusive forum for determination of need, it is out of our hands there. But, again, there has been a lot of instances, and I think Commissioner Argenziano

can point to some where we have approved something one day only to have fingers pointed back at the Commission the next day. And sometimes Public Counsel has even

done that to us.

So, again, my concern is there seems to be quite a bit of risk here that is not definitized as to what the outcome might be. And by virtue of the chart that is presented, there could be a host of outcomes, some not too positive for the ratepayers.

THE WITNESS: There is actually one additional court of approval, and that is the financing market, the financial markets. Strategically, at this phase of the game to go and try to lock up fuel contracts -- we did that once with Deer Haven 2, and, boy, was that a mistake. So the time to go after fuel contracts strategically is after you have your permits and your need so that people will get down and get their pencil out.

The final court of appeal that I'm speaking to here is what we do know is required in the case of the Nacogdoches plant, and what we are hearing from our bond counsel and also -- we have met with the rating agencies about this project, is that they are not going to get their financing that would enable -- there's three things that enable the notice to commence and that is

the permits and the financing. They are going to have to have 100 percent of the contracts in place to get the financing. And if they don't satisfy the financial that this a competitive unit, they are not going to get the money and the contract is moot.

appreciate those provisions of the agreement that protect the City and the ratepayers from construction risk and performance risk. I've got that. What I do see, though, is an undertaking where GRU is agreeing by the contract to purchase the entire 100 megawatts of capacity over and above the excess capacity that it currently has until 2023, and something has got to give between there. Either one of two things has to happen. Either you have to sell the biomass or you have to sell some of the stranded excess capacity that is well and above your reserve margin requirements in order to provide benefit to the ratepayers.

As far as the fuel contract, I can foresee that you might not want to enter into that until you have the approvals and construction starts. But as Commissioner Argenziano has alluded to and Commissioner Klement — it's the French versus the German pronunciation, and I've got to get it right. I apologize to my colleague. But there seems to be

significant or could be significant upward pressure on fuel stock prices by virtue of the competitive nature of the industry if you have more biomass plants or wood pulp industries. So how would you address -- I mean, would you envision -- let me be succinct. Would you envision entering into a long-term contract for fuel supply when it was appropriate to do so?

want to say that everybody at GRU staff totally understands and respects the magnitude of the decision that you are confronted with. And the questions you are asking are totally appropriate and they are the questions that we ask ourselves.

One of the things that I should mention to you is that in the delivered fuel price cost, the actual payment to the grower is probably less than 15 percent. So if the grower is looking for a premium, you know, it's not like it's going to be against the whole fuel amount. And the chipping, the processing, the trucking, that's an incredibly competitive business, and so that is -- what I'm trying to do is help you understand how we see the risk. And when you talk about the fuel risk of that 15 or 20 percent maybe moving compared to the risk we are sitting bare naked with coal and gas, we see the equation in the other direction.

COMMISSIONER SKOP: Okay. And I respect that 1 2 and appreciate it. Like I say, this is going to be guite a difficult decision, at least from my 3 perspective. Thank you. THE WITNESS: You're welcome. 5 6 COMMISSIONER EDGAR: Commissioners. 7 Mr. Wright, redirect. MR. WRIGHT: Excuse me, Madam Chairman. I do 8 have a moderate amount of redirect. And one other 9 thing, we actually have the updated table. I need a 10 11 break. I don't know if it is your pleasure --12 COMMISSIONER EDGAR: Mr. Wright, my goal -and I do say goal -- was to try to finish with this 13 14 witness, which I admit has gone -- this is a criticism, 15 it just has gone longer than I had expected. So thank 16 you to everyone for your patience. But I was planning to give us all a short nourishment break. So if you 17 18 would -- we can do that now. I would like to keep it -- because we need to 19 finish for a variety of reasons. So I'm seeing 1:20, am 20 21 I reading that right, if we come back at 2:00. I realize that it does not give people a lot of time, but 22 23 we do need to push through this afternoon.

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FLORIDA PUBLIC SERVICE COMMISSION

MR. SAYLER: We can accommodate that, yes.

Staff, can you eat quickly?

And we will also need to collect the red folders. 1 2 COMMISSIONER EDGAR: Okay. I will ask staff 3 to pick up the red folders. There are two, I believe, each at the bench. We will come back at 2:00 o'clock. 4 at which point we will take up -- do you want to do that 5 now, the exhibit? Is that what you were saying? 6 7 MR. WRIGHT: What I was going to say is that I have the magic device here of the updated exhibit that I 8 9 think --10 COMMISSIONER EDGAR: That we had marked? All 11 right. Then when I would do --MR. WRIGHT: And I thought I would get with 12 13 staff during the break and have them print it and then 14 we will have a hard copy. COMMISSIONER EDGAR: We are along the same 15 16 line. Please get with staff. Staff, please get with 17 Mr. Wright to work on producing copies of that exhibit that we discussed earlier that was to late-filed but 18 19 will not be late-filed perhaps. We will come back at 20 2:00, at which time we will take up that exhibit, 21 hopefully, and also begin redirect. MR. WRIGHT: Thank you, Madam Chairman. 22 23 COMMISSIONER EDGAR: Thank you. We are on 24 break. 25 (Lunch recess.)

1 2 STATE OF FLORIDA 3 CERTIFICATE OF REPORTERS 4 COUNTY OF LEON 5 WE, JANE FAUROT, RPR, and LINDA BOLES, RPR, CRR, Official Commission Reporters, do hereby certify 6 that the foregoing proceeding was heard at the time and 7 place herein stated. IT IS FURTHER CERTIFIED that we 8 stenographically reported the said proceedings; that the same has been transcribed under our direct supervision; 9 and that this transcript constitutes a true transcription of our notes of said proceedings. 10 11 WE FURTHER CERTIFY that we are not a relative, employee, attorney or counsel of any of the parties, nor 12 are we a relative or employee of any of the parties' attorneys or counsel connected with the action, nor are we financially interested in the action. 13 14 DATED THIS 23rd DAY OF DECEMBER, 2009. 15 16 17 Commission Reporter 18 Commission Reporter (B50) 413-6732 (850) 413-6734 19 20 21 22 23 24 25