BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 060555-EI

In the Matter of:

PROPOSED AMENDMENTS TO RULE 25-17.0832, F.A.C., FIRM CAPACITY AND ENERGY CONTRACTS.
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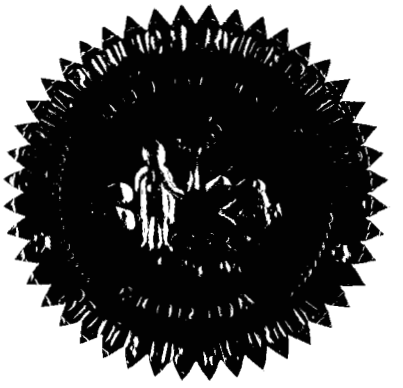

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VOLUME 1

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PROCEEDINGS:	HEARING
BEFORE:	CHAIRMAN LISA POLAK EDGAR COMMISSIONER J. TERRY DEASON COMMISSIONER ISILIO ARRIAGA COMMISSIONER MATTHEW M. CARTER, II COMMISSIONER KATRINA J. TEW
DATE:	Thursday, November 9, 2006
TIME:	Commenced at 9:45 a.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida

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SUSAN CLARK, ESQUIRE, representing Florida Power & Light Company, Progress Energy Florida, Tampa Electric Company and Gulf Power Company.

ROB HUNTER, representing Green Coast Energy, Inc.

KATHRYN G. W. COWDERY, ESQUIRE, representing Covanta Energy Corp.

RICHARD ZAMBO, ESQUIRE, representing the City of Tampa, Solid Waste Authority of Palm Beach County, Florida Industrial Cogeneration Association and Covanta Energy Corp.

ROBERT SCHEFFEL WRIGHT, ESQUIRE, representing Montenay-Dade Limited and Lee County.

JON MOYLE, ESQUIRE, representing Wheelabrator Technologies.

SUSAN GLICKMAN, representing the Natural Resources Defense Council.

FRANK SEIDMAN, representing FICA, Solid Waste Authority of Palm Beach, City of Tampa and Covanta Energy Corp.

MICHAEL BEDLEY, representing FICA, Solid Waste Authority of Palm Beach, City of Tampa and Covanta Energy Corp.

MARC BRUNER, representing the Solid Waste Authority of Palm Beach.

DAVID McCRARY, representing the City of Tampa.

APPEARANCES (continued):

SAMI KABBANI, representing Covanta Energy Corp.

LEON JACOBS, ESQUIRE, representing the Natural Resources Defense Council.

LARRY HARRIS, ESQUIRE, JUDY HARLOW, MICHAEL HAFF and TOM BALLINGER, representing the Florida Public Service Commission staff.

EXHIBITS

NUMBER:		ID.	ADMTD.
1	Staff Composite Exhibit	38	38
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CERTIFICATE OF REPORTERS: 117

P R O C E E D I N G S

CHAIRMAN EDGAR: Good morning. Welcome all. And for those of you that were with us the past three days here in the hearing room, welcome back.

We will begin by asking our staff to read the notice.

MR. HARRIS: Pursuant to notice published October 13th, 2006, this time and place has been set for a rule hearing in Docket Number 060555-EI, Proposed Amendments to Rule 25-17.0832, Firm Capacity and Energy Contracts.

CHAIRMAN EDGAR: Thank you, Mr. Harris.

And as always, for our next step I'm going to ask for the attorneys representing parties in our discussions today to give appearances.

MS. CLARK: My name is Susan Clark. I'm with the law firm of Radey, Thomas, Yon & Clark, and I'm here today on behalf of the four investor-owned utilities, Florida Power & Light, Progress Energy, Tampa Electric Company and Gulf Power Company.

CHAIRMAN EDGAR: Thank you.

MR. HUNTER: My name is Rob Hunter. I'm the Director of Operations for Green Coast Energy. I'm not an attorney, but I'm a renewable developer and I'm speaking on behalf of my firm. Thank you.

CHAIRMAN EDGAR: Thank you.

MS. COWDERY: I'm Kathryn Cowdery with Ruden McClosky

located in Tallahassee, Florida, representing Covanta Energy Corporation.

MR. ZAMBO: Rich Zambo, an attorney representing the City of Tampa, the Solid Waste Authority of Palm Beach County, the Florida Industrial Cogeneration Association, and co-counsel with Kathryn Cowdery with regard to Covanta Energy.

CHAIRMAN EDGAR: Thank you.

MR. WRIGHT: Good morning, Madam Chairman and Commissioners. I'm Schef Wright. I'm with the law firm Young van Assenderp in Tallahassee. I have the privilege to represent Montenay-Dade Limited, which operates the Dade County Resources Recovery Facility, and also Lee County, Florida, in these proceedings. Thank you.

CHAIRMAN EDGAR: Thank you.

MR. MOYLE: Good morning. Jon Moyle with the Moyle, Flanigan Law Firm appearing today on behalf of Wheelabrator Technologies, which is a waste energy company. They have three plants in Florida and are one of the largest waste energy companies in the country.

CHAIRMAN EDGAR: Thank you. Just a few reminders. This is a rule hearing which will be conducted according to the provisions of Section 120.54, Florida Statutes, and Rule 28-103.004, Florida Administrative Code. The purpose of the hearing today is to allow the Commission to inform ourselves of matters related to the proposed rule language, to

give interested persons an opportunity to present statements, evidence and even maybe some arguments, and the opportunity for the Commissioners to ask questions and for all of us to have some discussion. We will be proceeding somewhat informally and will not be swearing witnesses, but I will ask you to go through the Chair so that we can move through things in an orderly manner.

We've passed out, I believe, an agenda with the order of speakers that we will follow. And I'm going to begin our discussions today by recognizing and asking for some opening comments by Senator Bennett. We are very pleased to have the senator with us here this morning. The senator has recently chaired the Community Affairs Committee, the Joint Administrative Procedures Committee, and we're pleased to say has an interest particularly in the Public Service Commission by having served on the nominating council. Senator, welcome.

SENATOR BENNETT: Thank you very much, Madam Chairman, members. I do find myself in kind of an unusual position today being Chair of Community Affairs, then also being Chair of JAPC and the rules that you all are going to propose, and also being Chair of the Public Service Nominating Council. It's kind of, kind of an interesting role. But more importantly, I find my background of trying to establish for the State of Florida the Century Commission. The Century Commission, we set that up in Senate Bill 360 to really look at

a sustainable Florida. We wanted a Florida that we could look out 50, 100 years and hope that your children and their children and their great-grandchildren would have a Florida that we would all be proud of and that we could all live in. And some of the discussions we've had on there, as everybody that's sitting up there today knows, I've been interested in renewable energy since I first got elected to the Florida House in 2000 and actually prior to that. And I found it very, very frustrating that we don't seem to be able to make any progress. And part of the problem that we've got on there is the competing interests between the public utility companies and the renewable energy providers.

When we passed the legislation in 2005 which gave you the direction that we're here for today, it really was to give you all the flexibility that you would need. Instead of us trying to micromanage from the Florida Senate or the Florida House what you all do, we wanted to provide you with the flexibility to design rules that would protect the consumers of the State of Florida. And often times it's come back to us, well, yes, Senator, you can get the renewable energy, but it's going to increase the cost to the consumer in the State of Florida and we don't want to do that, and I've always disagreed with that argument. It might increase the price a little bit, but it's not going to increase the cost. If we have sustainable energy and renewable energy in the State of

Florida, it'll decrease the cost because part of the cost is polluted air, part of the cost is depleting our natural resources. Those are costs. The price is what you actually pay. It's the cost of not doing renewable energy that the consumers and your children and their grandchildren are going to pay if we all don't do something here.

We wanted you to have the flexibility, but we also expected action. We also know that it's a tough, tough situation. And I'd volunteer to the Chair that if we have got to go back and adjust our statutes and give you more help and maybe we left it a little confusing, maybe we left too much out there that makes a conflict with your staff, maybe we weren't clear enough, and I'm willing to go back and do that depending on how these hearings come out. Because sometimes we rely on staff, but staff often times has got also competing interests because of the input from industry lobbyists, industry people that they work with on both sides of the issue, and I recognize that. But that's also -- if I remember correctly, other than possibly Commissioner Deason, just about everybody that's sitting up here today, when we interviewed you, everybody knew my strong interest in renewable energy, and you all conveyed that back us to. And that's why I'm here today is to make sure that you all understand how important it was that when we passed that legislation, we expected you all to make some bold moves, we expected you all to take some serious steps that

looked at the future of the State of Florida and understood the difference between price and cost. Because too many times we hear one thing and we don't see the other, we don't see the big picture.

We also wanted you to have the opportunity to look at the situation of avoided costs. I've never understood -- and I've seen it happen time and time again where the power company will come in front of the Commission and say, look, it's costing us 7.5 cents to produce this electricity, we're not making money, we've got to increase our rate. I've never understood why the 7.5 cents that they showed here is not the 7.5 cents that they show for avoided costs on the other side from a renewable. We cannot expect the renewable companies to take a financial risk if they can't get the financial return. It's up to you all to take those bold steps and make sure it happens, that we treat everybody on a fair basis, and that's what we absolutely need.

If we're going to have a sustainable Florida, we're going to have to have it with renewable energy. When the power companies are buying fuel, and we've all seen what happened to the fuel costs, and I understand that -- I saw a release the other day that FP&L and a couple of others have thought the rates are going to go down a little bit because the fuel costs have come down, but we've put the consumer at the risk of absorbing those rates because that gets all directly passed on

to them. And we've got to bring a way to level out that playing field, and I think we can do that with renewable, because renewable will not be subject to that same fluctuation in fuel costs that we're putting on the consumer out there today. So if we're really truly interested in the consumer, we've got to look at the air that they breathe, we've got to look at the resources we burn up, we've got to look at taking the risk out of the fluctuations in the fuel costs, and we can do that by having more assets at our disposal to generate electricity.

I'm willing to listen to you, Madam Chair, or anybody else on the Commission for changes in Florida Statutes that we need to make your job easier, but at the same time I believe it's up to you all to not be micromanaged by the Florida Legislature, but I think taking the input from all of the industry and see if we can't come up with a sustainable Florida. That was the purpose of the legislation and that's what I'm asking you all to really take to heart and see if we can't come up with some rulemaking that makes this deal done.

I will answer any questions, if you want. I don't want to hold up your hearing, but if there's anything in particular, I'll be happy to tell you.

CHAIRMAN EDGAR: Thank you, Senator. Commissioners, any comments for the senator before he leaves us today? No? All right.

Thank you, Senator, so much for joining us.

SENATOR BENNETT: Thank you, Madam Chairman. Appreciate it. Thank you.

CHAIRMAN EDGAR: Next on our agenda we have some presentations by our staff.

MR. HAFF: Good morning, everyone. I'm Michael Haff. I'm on the Commission staff. And myself and two others are going to give a brief overview of the rule, proposed rule amendments and some of the background that goes into planning and pricing.

I'm going to be discussing basics on electric planning and the economics that go behind utility planning. Tom Ballinger is going to discuss the pricing options under the value of deferral and Judy Harlow is going to discuss the rule revisions that we have proposed.

Just a brief summary: Peak demand is the instantaneous measurement of load at any point in time of the day. This is actually an annual load duration curve, the red line. The peak demand determines the timing and the size of a needed new generating unit.

The net energy for load, NEL, is the accumulation of demand over a period of time, and it's essentially the area under the curve, as we call it, and it determines, it's one of the determining factors in the type of a unit that's needed by a utility.

Really we see there's really two ways to look at the need for power. There's a reliability need, which is what we normally bring to the Commission in a determination of need process when a utility has a need for electricity. And the reliability need is defined by the utility's peak demand forecast plus a reserve margin. And that peak demand forecast is net of all conservation and demand-side management that's under the utility-sponsored DSM programs.

An economic need is really just the lowest combination of total costs that make up a capacity type, capital and fuel costs combined. And the primary driver behind the economic need is the fuel price forecast, in particular the differential between solid fuels and fuels such as gas and oil.

This slide is sort of a graphical summary of the general relationship between capital costs and fuel costs. And essentially on the left there, generally your fixed solid fuel type plants have higher capital costs, nuclear are generally the highest. Peaking units such as combustion turbines are generally the lowest on a dollars per KW basis installed cost. And on the right, the fuel cost, as you see, is generally the inverse. The dispatch cost of combustion turbines is generally the highest. As you work your way down on the dispatch curve, nuclear is cheapest.

Which is the lowest cost alternative? And this is information provided by Progress Energy from their 2006

planning studies. It's what's known as a levelized cost curve. And in looking at it, you can see the different types of technologies. The, the bottom axis is your capacity factor, the amount of time that the utility would expect to dispatch and operate this unit. And what you can see is for the flatter curve such as coal and nuclear, in order to be the least cost alternative, you generally have to operate it longer. The peaking units such as combustion turbines are generally cheaper if your need is not to dispatch often.

The economic decision that utilities make and that we evaluate in determining options is cumulative present worth revenue requirements. And to back up, the annual revenue requirements for a utility for operating their system includes the carrying costs of capital, taxes, insurance, operation and maintenance and fuel. It's an all-in cost. These revenue requirements over a period of time can be present valued back to current dollars and summed in a single value, and that's the cumulative present worth revenue requirements. This is the method that utilities use for performing their long-term analyses of alternatives. And as you may know, the lowest cumulative present worth revenue requirements equals the least cost alternative for utility customers.

Here's an example you may have seen from Florida Power & Light's Clean Coal Study from early 2005. The data comes from the study. What this is is a graphical

representation of a choice that FPL made for a, at the time it was a 2011 need for power, whether to build a combined cycle, gas-fired combined cycle or a polarized coal unit, and the graph shows the cumulative present worth revenue requirements. Everything above the axis is more costly and below the axis, of course, is least costly.

What this shows is that the capital intensive coal-fired unit that FPL evaluated requires a long-term commitment and a number of years to obtain cumulative present worth revenue requirement savings. Now, of course, the savings are heavily dependent on the fuel price forecast, and in particular the differential between coal and gas.

What we just talked about was an example of fuel diversity and what would fuel diversity cost at the time a utility is making a resource option choice. Now we're going to discuss the assumption of what would fuel diversity cost if we were to do it today? And what that would assume today is that even without a need for power, we would assume the addition of a hypothetical coal unit in 2006. What it would have the effect of doing for the electric system is displacing the operation of a natural gas unit with similar operating characteristics. Typically the combined cycle units generally run intermediate to baseload in a coal unit to baseloaded unit. What you would get is energy savings because the gas-fired energy is replaced by the least costly coal energy. Coal is

cheaper to, to run.

The effect of this is the existing units in the utility's system remain in rates, and the additional coal capacity, if you will, that's priced through contracts and the energy of that unit is recovered through our adjustment clauses.

There's no additional gas capacity cost associated with this type of option. And the data that we're going to show you here in a minute on the next page is from FPL again. It's taken from their 2006 Ten-Year Site Plan and the supplemental data that we asked for from that plan. And the reason we're using FPL in this instance is they're really the least -- or the most likely candidate if we were to pursue fuel diversity now. As a percentage, FPL has a lot of gas-fired electricity and as an aggregate amount has the most gas-fired capacity of all the Florida utilities.

Currently in their Ten-Year Site Plan for 2006, approximately 46 percent of their energy was to come from natural gas. And despite their plan's inclusion of coal-fired units in the outer years of the Ten-Year Site Plan because of capacity needs prior to that being able to add the coal units, they're still expecting almost 60 percent generation from gas by 2015.

This graph is an assumption of whether we were to add a -- assume the addition of a coal-fired unit that could enter

service today without being based on a reliability need. And what this is is a comparison of a plan that has a coal unit added in 2006, today, as opposed to a, say, a gas-fired combined cycle unit.

And what it shows is there is some savings in the first year followed by costs that never break even after that point. This is, remember, this is the cumulative present worth revenue requirements. The fixed costs of the coal plant, the higher fixed costs are never offset by fuel savings if we were to do the coal plant today. And the reason why is the cost differential between gas and coal is, according to FPL's plans and other utilities as well, the differential is wider in the early years and they're expected to narrow as gas prices are forecasted to decline from what late last year was pretty high levels, over $12 per MMBtu.

The thing to take away from this chart is for net benefits to occur from doing fuel diversity today, the gas and coal price differential would have to widen significantly and sustain that differential for net benefits to occur.

The impact of, of fuel diversity today would be an increased cost to customers because the plant does not show cumulative savings. We have no future review of fixed costs and, of course, there is a high risk of future fuel costs as well.

And now I'm going to turn the next part of the

presentation over to Mr. Ballinger. Oh, I'm sorry.

CHAIRMAN EDGAR: Mr. Haff, before you do that.

MR. HAFF: Thank you.

CHAIRMAN EDGAR: I think we have a question.

Commissioner.

COMMISSIONER ARRIAGA: I don't, I don't have a question for Mr. Haff. You can sit down.

CHAIRMAN EDGAR: Okay.

COMMISSIONER ARRIAGA: Madam Chairman, because you told me that this was to be an interactive thing, I cannot let the opportunity of the comments made by Senator Bennett, they brought up two basic policy and legislative intent questions that will help me set myself in the mind-set of what is going to be proposed before we go into all these technical things that are coming up that I know are, some of them are mathematically complicated. So if you'll allow me two questions, one to Ms. Clark in representation of the IOUs. I'm going to pick of you from the renewables, it's going to be Mr. Moyle.

So, Ms. Clark, would you please help me out? This is a policy legislative intent issue. I read your supplemental comments and they're very thorough, very convincing, very deep in thought. And you seem to be suggesting that we take into consideration, I'll use your own words, quote, Commission long-held policy. Quote again, more than 20 years of

well-reasoned, equitable and successful Commission policy. Quote again, no reason exists to create a separate rule for renewable resources. How do you propose that we go about the task of promoting renewable energy as mandated by the Legislature -- you heard Senator Bennett -- if our decisions are to be constrained by past policy and/or past precedent?

MS. CLARK: Let me say a couple of things about that. Those policies were developed after thorough consideration and, in fact, over the 20 years they were tested at various times to see if they continued to be the best policy. The polestar was and should continue to be: What is the cost to the customer? That's why I think they're still valid today. Your staff is going to show you about the value of deferral methodology.

The other thing I would say to you is I believe the Legislature has looked at a proposal such as the renewables are going to suggest to you today that is artificially providing financial incentives to Mr. Zambo's clients, to require that 25 percent of the capacity in the state come from renewables, and there's one other one, I'm missing it right now, but those things, the three things that they proposed were considered by the Legislature and rejected. The reason being is it increased costs to customers without commensurate benefits to customers.

The statute hasn't changed regarding that polestar. That's what 366.91 and 366.92 tell you: Accomplish these things and at the same time minimize cost to customers.

What I would also say to you is the Legislature, I think, recognized that this past year, and they have, and they have passed some further legislation that was part of Senate Bill 888 to further encourage renewables. There's tax credits in there and there are grant programs. I think those are the right ways to get it done.

Keep in mind, if you do what the renewable generators are suggesting to you, particularly Mr. Zambo and his clients, you will substantially increase prices to customers. I don't think that was the intent of the Legislature. And as I think Mr. Haff has demonstrated, that it's going to increase prices with no benefits to them.

COMMISSIONER ARRIAGA: Thank you. And that brings me to the second question because it's related, the answer is related to the question, Mr. Moyle. I appreciate your answer, Ms. Clark.

The IOUs, as you've just heard, contend that the Legislature never intended that the cost of promoting renewables be passed on to the general body of ratepayers. And note that I'm saying cost, not price. And they specifically quote, as you just heard from 366.91 and 92, quote, it is the intent of the Legislature to promote the development of renewable energy, and it continues, and at the same time minimize the cost of power supply to electric utilities and their customers.

So my question is is it your interpretation of the statute that the Legislature intended that the cost, again, cost, if any, of promoting renewables should be passed on to the general body of ratepayers?

MR. MOYLE: Let me, let me respond to this. I'll answer your question, but, but, you know, you heard from a sponsor of the legislation. I knock around over at the Legislature. Those are the folks that historically on the floor I look to because they've carried the bill throughout the process. And I think he, you know, he gave you some insights as to what, what was in his mind. And I'll recognize that the legislative intent is what took place back in 2005, and in that case, you know, the way I read it, they said we need to move the ball forward on renewable energy and we need to do it, and we'd ask you all to help us in that.

And the first question you asked in response to about the policy, and it's the long-adhered to policy, if I understand things properly, you all are an arm of the legislative branch and you all are charged with some policymaking responsibilities. There's a rule of law, I've heard it many, many years, that says one legislature can't bind another legislature. You have to be able to be free to make decisions to reevaluate things. And I would argue that that's what you're being asked to do now. So this reliance on something that happened 20 years ago, I think is -- I don't put

a lot of credence in it because, you know, I guess as he alluded to, a number of y'all have been through the process recently and I think heard comments on renewables, and I think your charge is to look afresh and look anew at the renewable energy issue and how best to structure it. You know, there's a lot of ideas that have been put on the table. You know, the cost is something that needs to be considered. I had some questions that I was trying to understand better, and I appreciate this is an informal process, about the slide because I don't understand on the coal piece --

COMMISSIONER ARRIAGA: Can I interrupt you a minute?

MR. MOYLE: Yeah.

COMMISSIONER ARRIAGA: My question specifically was if the legislative intent was to pass the cost of promoting renewables, if any, to the consumer, the general body of ratepayers. Would you answer that for me?

MR. MOYLE: I think it would be, yes, that it is, and I think Senator Bennett said that.

COMMISSIONER ARRIAGA: Do you think the general body of ratepayers should carry an additional cost to promote renewable energy?

MR. MOYLE: I think that's the policy direction that the Legislature said to achieve fuel diversity. You know, natural gas is not where they want to be. They want to --

COMMISSIONER ARRIAGA: At the expense of the general

body of ratepayers?

MR. MOYLE: I think that's what they said.

COMMISSIONER ARRIAGA: Thank you.

CHAIRMAN EDGAR: Mr. Ballinger.

MR. BALLINGER: Good morning, Commissioners.

MR. MOYLE: Madam Chair.

CHAIRMAN EDGAR: Just a moment. Mr. Moyle.

MR. MOYLE: Would it be appropriate to ask Mr. Haff some questions on a couple of those slides that he presented?

CHAIRMAN EDGAR: We can do that. Yes. Yes. We can ask questions.

And, Mr. Haff, as you come forward, this may be the appropriate time for an additional comment on procedure. We'll always allow questions from Commissioners first. But if there are questions from hearing participants, I will allow that, remembering that it is for clarification purposes.

Mr. Moyle.

MR. MOYLE: And I would -- that's what I'm going to try to do with respect to these slides. The first slide, I think it was the first slide, the need for power, it talked about a reliability need and economic need. I was curious with respect to your understanding as to where the diversity need fits in into, into that analysis, if it does.

MR. HAFF: I believe it fits into both. A utility has a need for capacity, and at that time they pick the -- the

fuel diversity issue comes into play at that time when a utility has a need.

MR. MOYLE: Are there situations where a utility will say, well, we need -- we're too heavy in a particular fuel source like natural gas; even though it's going to cost more, we need to go pursue something else, coal or renewables? I mean, is that something that you've seen and is accepted?

MR. HAFF: Well, we have in the past. You know, going back 20 something years with oil backout projects, we've had some that were approved by this Commission based on oil backout on fuel diversity.

MR. MOYLE: So the policy decision has been made that cost isn't the end-all driver, that diversity can at some points be persuasive enough that a higher cost fuel will be selected?

MR. HAFF: I think it just depends on the particular situation, which utility, which case, and the issues it had. It would have to be on a case-by-case basis.

MR. MOYLE: Okay. The capital cost versus fuel cost chart, that's helpful to sort of understand that. I was wondering where renewable, like a renewable resource would, would fit into that chart.

MR. HAFF: Well, I think it depends. I mean, are you -- if you're, I guess, a municipal solid waste facility, your capital costs may be higher but your fuel would be lower.

If you're a, you know, methane gas producing facility, your capital costs may be higher but your fuel would be lower.

Generally, the operational characteristics of some of the waste facilities' renewables would have a higher capital cost but a lower fuel cost. But it's not, you know, uniform across the board.

MR. MOYLE: Yeah. If you had wind, wind would go where, low capital costs, low fuel costs?

MR. HAFF: Wind would be a very high capital cost, I believe, and a very -- well, I guess free fuel cost. Some variable O&M, I imagine.

MR. MOYLE: Yeah. All right. Well, I just -- again, as we're going through this -- I mean, one of the things I think that you'll hear today a little bit is, you know, renewable should be part of the, part of the mix, and I was just trying to understand where that might, might fall in on there.

One final clarification point. You went to that slide about the cumulative present worth revenue requirements.

MR. HAFF: Was it that one?

MR. MOYLE: The economic decision, cumulative present worth requirements, revenue requirements.

MR. HAFF: Is it that one, Mr. Moyle?

MR. MOYLE: Yes. And if I understand that, you just explained you build one of these plants and you need to have

enough money to cover your, your debt and your O&M and your fuel; isn't that right?

MR. HAFF: Yeah. This is just a general explanation of how the revenue requirements are evaluated.

MR. MOYLE: Okay. Could that process also be applied to a renewable energy generator?

MR. HAFF: Well, I guess the renewable energy generator could do that internally. But, you know, from a -- this is primarily from where we evaluate a utility's request for need and how they evaluate the least cost alternative.

MR. MOYLE: I just was wondering whether there's anything -- you know, that's how it is with utilities is we're looking at this with a fresh set of eyes. You know, I was wondering if there was anything that said you can't, you can't do this with renewable energy.

MR. HAFF: Well, if a renewable energy provider was -- you know, say Mr. Hunter, who is a project developer, was to pick among alternatives, he would probably look at the one that's the, you know, best to him and lowers his costs.

MR. MOYLE: Okay.

MR. HAFF: And gives him the most opportunity to earn revenues.

MR. MOYLE: Just one, one final question and then I'll move on. But there was a discussion about the hypothetical coal unit. I think you referenced, you know, FP&L

having 60 percent of generation from gas in the foreseeable future. Do you recall that?

MR. HAFF: Yes. Yes.

MR. MOYLE: Is that too high of a, of a percentage of gas?

MR. HAFF: I don't know if that's for me to judge. I think that's a decision the Commission would have to make.

MR. MOYLE: I was just trying to wonder, are there any parameters out there, industry parameters that say, you know, like I know when you go to a person who helps you with investments, sometimes they say, you know, you ought to have this much in stocks, this much in bonds, this much in cash, this much in foreign. And it seems to me that an energy portfolio, an energy mix, and the Legislature is saying diversity -- are there any parameters that you're aware of that are out there to say here's sort of the ideal mix of fuels?

MR. HAFF: You know, that -- not that I know of. And as I said before, if the Commission were to pursue that policy, it would come from the Commission body. And that hasn't come from the Commission body at this time.

MR. MOYLE: Do you think as staff that that would be a wise thing to do, to set some parameters as to when you might be too heavy in a particular fuel?

MR. HAFF: It's hard to say. We evaluate it on a case-by-case basis among the utilities in the ten-year site

planning process.

MR. MOYLE: Okay. Thank you. I don't have any further questions.

CHAIRMAN EDGAR: Thank you, Mr. Moyle.

MS. CLARK: Madam Chairman.

CHAIRMAN EDGAR: Just a moment.

Commissioner Carter.

COMMISSIONER CARTER: Thank you, Madam Chair.

Mr. Moyle, you mentioned diversity. I'm all in favor of diversity, as you can probably see.

What, what type of diversity currently exists in the renewable industry in Florida today? Can you give me the list of what --

MR. MOYLE: Sure. And again, I'll go -- I may need some help on this, but I'll kind of go from what, what I know. I think you have some hydro that is up in North Florida, you have waste energy facilities that are located in a number of different places. That's encompassed within biomass. I think you have some sugarcane product that is being used, the Okeelanta/Osceola facilities that are down in the Glades. I think they use bagasse is the term, which is a refuse from harvesting sugarcane. I'm not sure that there's any wind in commercial operation. I do understand, and I think one of the investor-owned utilities is looking at some wind potential off the New Smyrna, Daytona Beach area. And with respect to some

technologies that would try to use the Gulf Stream currents, I'm told that there's some interest in investigation in that technology, but that's not commercial at this point, but I think it's something that's being looked at.

I do think also there's some solar energy that's being, being put out there. And there's some landfill gas presently where you take the methane out of the, out of the landfill and clean up the gas and burn it to generate electricity.

COMMISSIONER CARTER: Madam Chairman.

CHAIRMAN EDGAR: Commissioner Carter.

COMMISSIONER CARTER: Is there -- so primarily there's hydro, waste and the biomass?

MR. MOYLE: Yeah. And the hydro is a small piece, I believe, because --

COMMISSIONER CARTER: And an even smaller percentage of photovoltaic and solar?

MR. MOYLE: I believe that's right.

COMMISSIONER CARTER: That's the current type of diversity that exists in Florida?

MR. MOYLE: That's my understanding.

COMMISSIONER CARTER: And wouldn't you agree that in order for there to be a complete renewable industry in Florida, there should be a greater diversity of sources of renewable energy?

MR. MOYLE: Yeah. I would agree with that. I think that's part of the policy direction that's being provided is, you know, throw a wide net, see what, see what's out there. I think there may be opportunities for new technologies. I think if the right circumstances are set out there, there may be people that call you up that we're not even thinking about today.

COMMISSIONER CARTER: Just one follow-up, Madam Chair.

What do you think some of those ideas would be to expand, to expand the scope of diversity?

MR. MOYLE: Yeah. I was going to provide this when I had my comments later. But just in the last few days, you know, driving around I'm hearing stuff about -- on NPR a group said that they are advocating more self-reliance on energy almost as a security matter and this was a change that included nuclear. So I think, I think that was kind of an interesting argument from a self-reliance security perspective.

In the Democrat this weekend, I was flipping through it and there was an article about, about tides being used that I'll provide copies, if that's okay, Madam Chairman. And you'll see from this, this, this article, Commissioner Carter, this is some, some folks that are looking at tides, generating electricity and energy from tides. I mean, Florida is a peninsula, has a lot of water, it has some potential there. I

think that potentially could be something that, that could be pursued. And my friends with the investor-owned utilities, to their, to their credit, I understand are taking some active steps to, to explore ways to derive energy from the Gulf Stream. It's the biggest river, I think, in the, you know, in the world, the Gulf Stream, and I think, I think they are looking at, at that as a potential resource.

COMMISSIONER CARTER: Madam Chair.

CHAIRMAN EDGAR: Commissioner Carter.

COMMISSIONER CARTER: Is there a balance between the -- obviously every member of this Commission is, I think it goes without saying, not just those of us that have been recently appointed, but Commissioner Deason has extensive experience and a commitment to renewable energy, so this Commission is well on record as being in favor of renewable energy.

Is there a balance between the need for diversity of fuel sources and the costs to be borne by the grandmothers in Palatka? Because, I mean, the bottom line is whether we call it rates, price, costs or, you know, tomato or tomato, it's still there's a person at the bottom line that's got to write the check. So is there some kind of balance? What kind of formula do you recommend there being?

MR. MOYLE: Yeah. In response, I would say, yes, I think this is a balance. I mean, if you said, you know,

renewables, it doesn't matter if, you know, the sky is the limit with respect to cost. I mean, I don't think, you know, the renewable generators are advocating price is no object. I think some of the things you're hearing is to say set a fair price, set a price that a lender on Wall Street can look at and say this is financeable. I will invest my capital in Florida for this renewable energy project because I can evaluate the risk, I understand the risk and, and, and it'll work. So I think that, that what you're hearing from this side is to say, you know, give us, give us a mechanism that will work, that will draw capital down, and that will increase renewable energy in the state. But surely there is, there is a balance.

You know, I don't -- I think some questions will come out later on, but I'm told that currently, you know, we're at under 2 percent of, of energy in the state. I mean, one of the questions I had is, you know, how do we rank up compared to other states with respect to renewable? I mean, are we in the bottom quartile, the middle quartile? Where are we? And if, if we're not doing as well as a number of other states should, then I think that should provide some direction to say, well, maybe we ought to roll up our sleeves and figure out some ways to try to move up the ladder, if you will, in terms of the renewable piece. But there is a balance. We're not saying, you know, there's no, there's not financial restrictions on it.

COMMISSIONER CARTER: Thank you, Madam Chair.

CHAIRMAN EDGAR: Thank you.

Ms. Clark.

MS. CLARK: Madam Chairman, just if I may respond to Mr. Moyle in his comment back to Commissioner Carter. Your staff and the Department of Environmental Protection did do a study about the commercially, the potential and commercially feasible near term new renewable capacity that could be developed in Florida, and people at this table had input into that. And the estimate given at that time was approximately 651 megawatts of new, new capacity. That's on Page 10 of our initial comments.

The other thing I wanted to ask Mr. Haff was regarding the balancing of fuel diversity in terms of making decisions for what capacity you are going to add, isn't that part of the Ten-Year Site Plan and isn't it also part of a need determination?

MR. HAFF: Yes to both of those questions. We have an extensive section in the upcoming Ten-Year Site Plan report on fuel diversity, and we have discussed it at length in the prior years of Ten-Year Site Plan reports. And also that discussion does come up in a determination of need process.

MS. CLARK: So it would be correct to say that the Commission looks at this on a number of occasions.

MR. HAFF: Yes, we do.

CHAIRMAN EDGAR: Commissioner Arriaga.

COMMISSIONER ARRIAGA: Mr. Haff, Mr. Moyle made a comment regarding a percentage of renewables, and you said correctly that it was up to this Commission to make that determination. But at the same time, every time I read your recommendation to the Commission is to not make that, that -- to not set a goal, don't, don't set a benchmark. So how can it be our decision if, at the same time, you're telling us not to do that?

MR. HAFF: I believe what, what we need to do is, as Mr. Moyle actually stated, is find a balance. Now what is that balance? I'm not sure that I have the answer to that question, striking a balance between encouraging renewables and, as may have been said earlier, the impact on customers.

COMMISSIONER ARRIAGA: No. No. May I?

CHAIRMAN EDGAR: Uh-huh.

COMMISSIONER ARRIAGA: The point is that when I read staff's recommendations, it specifically states that it is not proper at this time to set goals. Why?

MR. HAFF: Set goals for renewables? Because --

CHAIRMAN EDGAR: Mr. Trapp.

MR. TRAPP: Commissioner Arriaga, if I may.

COMMISSIONER ARRIAGA: Yes, please.

MR. TRAPP: I think that if the Commission desires to set numerical goals for renewables, that's certainly something that the staff will pursue. I think the recommendation at this

point though is that we have, we have before you today what we call a market-based proposal, and staff does feel fairly strong about markets creating the necessary incentives for proper economic reaction. And, therefore, if we can get the price right such that there's at least no harm to the ratepayers, that price should attract the right level of renewables or conservation or anything.

The problem that staff struggles with with respect to numerical goals of any kind is what are those goals? Are they aspirational goals? Is it something that you tell your teen-ager, you know, I'd like for you to be in by 10:00, but, you know, if you make it by 11:00, that's okay, or is it, you know, if you don't get here by 10:00, by gosh, you're going to be grounded for a week? What are we going to do with those goals, first of all? And then second of all, how do you set the number? What is the number, what's the feel good number for that that can be realized, meets economic, you know, conditions and doesn't have adverse effects to the ratepayers while still encouraging what it is you want to task? So that's, I think, where we stand with it. But there again, perfectly, my staff is perfectly happy to pursue numerical goals, if that's the direction the Commission would like to, to direct us to take you in. And I think that's what we're here for. Rulemaking is for you to direct us where to go.

CHAIRMAN EDGAR: And if I may, in response to some of

those comments as well, to reiterate the point that Mr. Trapp just made, that is part of what we are here for is to hear discussion, have discussion and to give further direction to our staff as to where we want to go from here. Part of that, we have rule language that is before us for discussion and consideration today. But we all know that this is a multipronged effort. The rule is one piece of it and an important piece, but there certainly are other components and other actions that this Commission is taking. And certainly other entities, the Legislature -- Senator Bennett mentioned the Century Commission. I fully expect that the Century Commission will be looking at some of these issues as well from a broader perspective than our statutory authority allows. But from where we sit, there are some other things that we are doing, one of which, as you know, there are reports that our staff is working on drafting and information that we are compiling that is required that gives us an opportunity to look at some of these issues later this year and next year with some of the reports that we are required to do. And, as you know, we are working on putting together a workshop in January to bring in additional expertise from across the country to give us the opportunity to further discuss these issues and to learn more about what is out there about the technology, about what some other states and others are doing as well. And I fully expect that as -- and we've also brought in very recently some

additional staff expertise on these issues, and I am very hopeful that as we fold all of that together, we'll have a clearer picture of some of the things that we can do in conjunction with the other efforts of the state. I would expect that the goal discussion would be part of the discussion at our workshop and part of what flows from that as well.

Mr. Haff, thank you very much. And, Mr. Ballinger, before you start, I was going to take up the exhibits after the staff presentations, but it looks like this may be a good time to go ahead and do that. So, Mr. Harris, I believe we need to go ahead and enter the staff composite exhibit into the record.

MR. HARRIS: Yes, ma'am. And we would suggest that that be Exhibit 1.

CHAIRMAN EDGAR: So marked and moved.

(Exhibit 1 marked for identification and admitted into the record.)

CHAIRMAN EDGAR: And then -- go ahead, Mr. Harris.

MR. HARRIS: Yesterday afternoon the IOUs filed some supplemental comments, sent them out. I think the Commissioners have copies; I provided some today. I think Ms. Clark would probably like those to be admitted as Exhibit 2.

MS. CLARK: Yes, please.

CHAIRMAN EDGAR: Okay. The supplemental comments from the IOUs will be marked as Exhibit 2 and entered into the

record.

(Exhibit 2 marked for identification and admitted into the record.)

CHAIRMAN EDGAR: And then, Mr. Harris, do we need to go ahead and mark the article that was distributed by Mr. Moyle?

MR. HARRIS: If Mr. Moyle would like that to be part of the record, I think it should be marked, yes.

MR. MOYLE: Sure.

CHAIRMAN EDGAR: Okay. We will mark it as Exhibit 3 offered by Mr. Moyle, and we will mark it Tallahassee Democrat Article 11/4/06.

(Exhibit 3 marked for identification and admitted into the record.)

MR. ZAMBO: Madam Chairman?

CHAIRMAN EDGAR: Mr. Zambo.

MR. ZAMBO: Could I ask Mr. Haff a few short questions?

CHAIRMAN EDGAR: You may.

Mr. Haff, will you join us again?

MR. ZAMBO: Mr. Haff, in your presentation on economic decision, the CPW revenue requirements, I just wanted to make or clarify, when we, when we talk about value of deferral payments later, we talk about present worth of revenue requirements. I want to, I want to make sure I understand that

this is, this is different; right? The number you're referring to here includes both capacity and energy?

MR. HAFF: Yes. As does -- well the value of deferral is calculated on a capacity payment, but the payment made to a renewable energy provider would also include energy.

MR. ZAMBO: Right. But when you do value of deferral, your cumulative present worth of revenue requirements is only the capacity component.

MR. HAFF: Well --

MR. ZAMBO: And when you're comparing technologies, when the utility is comparing technologies, coal or natural gas or what have you, that cumulative present worth of revenue requirements includes both fuel and capacity over the life, projected life of the plant.

MR. HAFF: That's correct.

MR. ZAMBO: Okay. So they're not, they're not the same thing.

MR. HAFF: Well, in my evaluation on the chart, and Mr. Ballinger is going to look at value of deferral later, the cumulative, the present value of a cumulative present worth revenue requirement stream on just the capital and O&M part is equal to the value of deferral, and he'll explain that in a few moments.

MR. ZAMBO: Yeah. But what I want, what I want to clarify here is that when a utility selects the next unit, they

do cumulative present worth revenue requirements that projects the capital cost and the energy cost over the life of the plant.

MR. HAFF: That's correct.

MR. ZAMBO: Okay. Now if their, if their projections of energy costs over the life of the plant are wrong, what happens?

MR. HAFF: Well, if they're wrong, if they're higher or lower, the, the fuel or energy component of the utility's plant is brought to us for review in the fuel adjustment clause, as would be the energy payment of a renewable energy provider. That's recovered through the fuel adjustment clause as well.

MR. ZAMBO: But once that plant is approved and built, there's really no recourse, is there? A utility has no choice but to operate that plant at whatever the fuel cost happens to be.

MR. HAFF: I don't know if they have no choice. I mean, if they have other plants in place and then it becomes an economic dispatch decision. But as far as keeping it in rate base, unless they replace it with something else, then, yes, it would stay in rate base.

MR. ZAMBO: Okay. Okay. You also, on that slide you say that the cumulative present worth of revenue requirements equals the least cost alternative to ratepayers. Does that

include the risk of fuel price, fuel prices varying from what were projected over that 30-year time period?

MR. HAFF: No. The cumulative, the lowest cumulative present worth revenue requirements is the mathematical calculation of a generation expansion plan, including different expansion plans with different alternatives. And when a choice is made of which generating unit to build, it's the one that provides the lowest cumulative present worth to that company over the life of that plant.

MR. ZAMBO: But does it include, is there a component added to the price, to the cumulative present worth, is there some sort of an adjustment factor or something to recognize that if I build a gas plant and I forecasted prices over 30 years and I know they're going to be wrong, are they likely to be wrong high or wrong low? Is that risk accounted for?

MR. HAFF: There's no numerical value given to that risk, if that's what you're asking.

MR. ZAMBO: So that risk is totally borne by the customer.

MR. HAFF: I believe it's borne by the utility and the customer, as would any wrong fuel price forecast that results in a calculation of an energy payment.

MR. ZAMBO: But if the -- isn't fuel passed through directly to the consumer?

MR. HAFF: Yes, it is, for a utility and for a

contract.

MR. ZAMBO: So how does the -- how does that -- how is the utility absorbing that risk?

MR. HAFF: Well, their risk is that they would not -- you know, their risk, I guess, is in higher bills to the customers. I mean, I don't know, you can call that some sort of risk. I mean, there's a risk. It's passed through to the customers financially. But so are contracts.

MR. ZAMBO: Well, it's passed through to the customer, but the customer pays for it; correct?

MR. HAFF: Yes. Yes.

MR. ZAMBO: It doesn't come out of the utility's bottom line.

MR. HAFF: No. The fuel -- no, it does not.

MR. ZAMBO: Okay. So when we're talking about --

CHAIRMAN EDGAR: Mr. Zambo, you're coming awfully close to what appears to me to be cross as opposed to clarification, so just keep that in mind, if you would.

MR. ZAMBO: Okay. Okay. One final question then. On the, on the hypothetical coal unit on the in-service date, what were the basis for the fuel price projections that you used in that, in that chart?

MR. HAFF: It was the, it was the natural gas and coal price forecasts that were provided by Florida Power & Light in the supplemental data -- the response to the

staff's supplemental data request in the Ten-Year Site Plan process.

MR. ZAMBO: Okay. That's all I have. Thank you.

CHAIRMAN EDGAR: Okay. Thank you.

Thank you, Mr. Haff.

Mr. Ballinger, I think we are now ready.

MR. BALLINGER: Good morning, Commissioners. I have the enviable task of trying to explain value of deferral, which in our rules is about five pages of exponential equations and stuff like that, and hopefully I'll get it down to a couple of slides.

The other thing in my presentation, I'll try to explain the difference. And people brought up, they're correct, renewable generators and utilities are different. They have different business models, they have different needs, different aspirations. And I'll try to explain those differences and then follow up with why value of deferral works and helps to solve that problem between the mismatch.

Value of deferral is not a new concept. It came about in 1982 with an IEEE paper by a utility engineer by the name of John Seelke. And the purpose back then was DSM and load management was just coming into vogue and utilities were struggling with how do I analyze the value of adding a load management device or attic insulation or something like this? And the whole purpose of doing conservation or DSM activities

it to avoid building a power plant. That's really what we're trying to do is avoid building something. We're faced with those decisions every day in our lives. We're going to need a new roof in the future. Okay? I can spend some money now to prolong the life of that thing, but eventually I'm going to have to do a new roof. There's a value of deferring the need for a new roof. And conservation is the same thing. We have a value of deferring the need for something I have to do.

Utilities are basing a plant on a need because they have an obligation to serve under statutory requirements. Renewable generators do not have an obligation to serve. Their business model is based on one of either an economic need, desire to make a profit, which there's nothing wrong with that, or another societal need such as disposable solid waste. Nothing wrong with that either. But the two business models don't quite mesh. They have different timing needs, they have different economic drivers, if you will, to do things with.

Anyway, back to value of deferral. The paper was written about how do I analyze the value of adding load management to a system? Well, load management is very similar to renewable generation. It comes onto the system in small increments, 20, 30 megawatt blocks maybe, at various times and it's not really in the control of the utility. But what it does is it helps defer the need of having to build based on a reliability need that Mr. Haff talked about.

We look at reserve margin and things of that nature. When do I absolutely have to build something for reliability? I don't want to build excess capacity. So that's the real driver. That's why staff read that paper and said this is pretty similar to how we can price cogeneration. It's having the same purpose on the utility system to defer the need based on reliability to have to construct a utility plant to meet an obligation to serve. That's why we applied the value of deferral method back in the early '80s, we've applied it for 20 some years, and it's consistent and it works.

I told you earlier that utility planning decisions, or Mr. Haff, are long-term reliability needs and the economics are evaluated over the life of the unit. But renewable facilities have -- their needs are based on economic desires again or societal needs.

They also -- and nothing to fault them, they want variable contract terms. They may not want to sign a 30-year contract for the life of the unit. They're not in the business to -- they're not obligated to serve power. They have an economic need. So they may only need a ten-year contract or five-year contract to finance their proposal. And it varies with the type of facility. What if it's an existing facility that's already been built and they're just adding a generator on the back end versus a whole brand new greenfield site that may need a longer contract? So there's a lot of differences in

their business model.

Next slide, please. What it is is it creates two mismatches or two problems, the first one being the mismatch between the in-service date and the utility need. We've heard in comments that the renewable generators want capacity payments when they come online, that's their desire because they have economic drivers. The utility has an obligation to serve based on need, so the in-service date is the date of the avoided unit, when I absolutely have to build something.

The second problem that's caused by the two different business models is contract term. A utility is obligated to serve ratepayers. If anybody shows up, they have to serve them. They don't have a choice. So their economic decisions are long-term life of the unit type of analysis.

Renewable generators don't have that. They look at their business model, their debt coverage. Can I pay for this contract, this expansion or unit in five years, ten years? That may be all I need, and then I'll renegotiate a contract. Or I may have gotten the value out of it and I go away. Nothing wrong with that. There's just differences. Okay? Value of deferral is a way to solve that disconnect, if you will, between the two business models.

Next slide. Now I'm going to try to take those exponential equations and put them to simple graphs. Mr. Haff talked to you about revenue requirements. And these little

block diagrams are not based on real numbers, they're just to give you the concept of what happens in a utility plan.

The first set would be if a utility added a plant that has capital revenue requirements that depreciates over 30 years, as you see, and then in year 30 I still have an obligation to serve, that plant is retired, I've got to replace it. So I replace it with the exact same type of plant, but my costs have gone up because of escalation. Again, I depreciate that plant for 30 years. I have to add another plant to replace it, and that goes on and on and on. We have this ongoing obligation to serve. So you see there, there will be a stream, if you will, of increasing capital additions as we go through time.

Next slide. Now let's just assume that we defer that unit a year. Okay? So you see now that first block has moved out a year but the costs have increased, again, due to escalation. And, again, we follow the same sequential series, an infinite stream of units going out into the future. So that is -- the difference between these two is the value of deferral, the value of deferring the need for that plant.

Next slide. If you do this and you do it for 30 years and defer something 30 years, you will get a stream, if you will, that looks like this, an ever-escalating cost. Because as we go out in the future, escalation, inflation, things of that nature cause capital costs to increase. So this

gives you the value. If I defer it one year, I get that first little bar. If I defer it 30 years, I get all the way up to that top bar on the right.

Next slide, please. What I've done here is to show you based on the in-service date of 2012 of a unit, you see this is a payment stream for capacity payments only based on value of deferral. So a renewable generator or utility would see no capacity payments up to 2012, they would jump up and then escalate out for the life of the unit. The area under that curve, present value, if you will, would be the area. Think of it as a water balloon. If you put some water in a balloon and you squeeze it at one end, it'll pop out, you squeeze the other and it pops the other way, but it's the same volume, it's the same present value. So it's the same pot of dollars I have.

What our existing rules do is allow you to spread those capacity payments in a variety of ways. Next slide, please. For example, if a generator wants levelized payments, they could spread them out, levelize those top ones, bring them forward, if you will, bring some capital forward to help with financing. You see a slight escalation there. That's because we do not levelize O&M. That is still indexed with inflation going up, where we've taken the capital, the fixed component of the plant and levelized it.

Let's say that's not enough, they want to get them

early. We can give them early payments. Next slide, please. We take the normal payments, we discount it back, we've taken the same volume, the same present value, discounted it back to today's dollars, to 2006. They can start getting capacity payments today on out to the life of the unit, so it has a 36-year contract. Again, same present value, same impact to the ratepayers.

Next slide, please. And we can even levelize the early payments. And, again, you see it shifts, you can see how the capacity payments shift, but the total volume, the total present value remains the same. That means the ratepayers are indifferent to whichever payment stream we choose. We leave that to the choice of the renewable generator. They can pick that in today's rules. It's been that way for 20 some years, but those options have been there.

Next slide, please. As you can see, all four payment streams have the same present value, so the ratepayer is neutral. The levelized option assists renewables in financing by giving them some capacity payments up-front today when they're online, let's say. Or if their business model calls for their plant to be online, let's say, in 2008, but the utility need is not until 2012, they can get capacity payments in 2008. The early option also does that; it brings it forward.

Next slide, please. As you can see, the value of

deferral is a method based on sound economics of present value analysis. It's a common practice that even the renewable generators probably do when they're looking at -- let's say he wants to build a new biomass facility. He might have Boiler A and Boiler B, different vendors, and he's got Generator A and Generator B, different vendors. He's going to combine all those, look at his cost to operate and look at a present value analysis of the two before he decides which to build. We're using the same principles here of how to pay renewable generators. It's based on utility cost.

The flexible payment options allow the renewable generator to select different methods, different timing and types that best suits their business model. And that's where, again, I go back to that first slide. This solves the problem of that disconnect.

Next slide, please. I'm sorry. Go back one. Let me finish up. Again to summarize, utility planning and cost recovery are long-term commitments based on reliability needs and an obligation to serve. And payments based on revenue requirements, if we go that route, require life of the commitment to generate the benefits. As you saw from Mr. Haff earlier, that if we want a coal unit, it's going to take some years for the fuel savings to catch up. So if we go that route with revenue requirements, we want to make sure we have long-term contracts to get the benefits of fuel diversity.

Value of deferral strikes a balance between the disconnects that we have between the two business models. And Ms. Harlow now will come up and summarize the proposed rules and explain to you how they are significant changes from the status quo that we've had over the last 20 years. And I'll be happy to take any questions now.

CHAIRMAN EDGAR: Commissioners? Commissioner Carter.

COMMISSIONER CARTER: Thank you, Madam Chairman.

Excellent presentation.

MR. BALLINGER: Thank you.

COMMISSIONER CARTER: It's got to be excellent because I understood it.

MR. BALLINGER: I practiced on my wife.

COMMISSIONER CARTER: Keep doing that. Smart man.

(Laughter.)

As I understood your presentation, it seems to me that it allows for symmetry, although they're divergent perspectives in terms of different business models, but it does allow for the symmetry. And the asymmetry is the value of deferral. I mean, any time anyone or anybody is going to make a purchase, they go through that purchase. Okay. What are the benefits that I'm going to get out of making this purchase and am I going to get any benefits over and above the cost of making the purchase? The perspective of a vibrant renewable industry along with a traditional electrical generation

industry, particular IOUs, is that I see, I see some symmetry there. I mean, I may be making it more simplistic than it is, but I understood exactly what you were saying. And I think that the -- I particularly like the ratepayer neutrality perspective on that because if it's indifferent to the ratepayers, then it's a seamless process and we don't even see it. I noted that some years ago there was discussion about the ratepayer neutrality when we were talking about the phones, but let's don't go down that road today.

MR. BALLINGER: I don't know phones.

COMMISSIONER CARTER: But I think that the perspective is such to where the symmetry between these two divergent perspectives is just like anything else. For an example, government exists primarily to meet the health, safety and welfare needs of our citizenry. But in order to do that, we have to buy paper clips, pens, pads, we have to buy gas, send people here and there. So the symmetry in these two divergent business models lends itself to, to a process where I can see on the one hand the IOUs saying, well, you know, we could build the plant, but if it's cost beneficial for us not to build the plant and we can get this power from reliable renewable sources, then we'll do that and buy it at different places along the grid at different points and all. From the renewable standpoint I can see where they would say, you know, we don't have the capacity for 1,200 megawatts, but we

certainly can do 30 megawatts and we can buy it. So I see, I see a symmetry there.

And I'm just, as I'm thinking here about your presentation, I just ask myself, and I'd ask all of us here today, particularly those on the other side of the bench, is to look at, you know, look at it as are we here for obfuscation or are we here for action? And I think that's really what the Legislature wants us to do, get beyond the rhetoric, get down to the bottom line, because the people of Florida deserve quality reliable energy. Secondly, the people of Florida deserve to have us doing more than talking. It's time to walk the walk. And the only way we're going to do this is recognize that you don't get everything you want. You said you were talking to your wife this morning, so I know that. I don't get everything I want. But if we, if we just, you know, put the rhetoric aside and look and say, okay, we're committed to renewable energy, we are committed to a reliable electrical grid in Florida. So, I mean, I don't see a conflict there. So, I mean, that's just from my soapbox, Madam Chairman. Thank you.

CHAIRMAN EDGAR: Thank you.

Commissioner Arriaga.

COMMISSIONER ARRIAGA: 100 percent in agreement with Commissioner Carter. Well said.

Mr. Ballinger, help me clarify one of the points the

renewables have made before regarding value of deferral and their possibility of meeting their financial needs. So look at it from a banker's point of view. Do you think a bank would finance an investment if they saw this possibility? Do you think they're going to feel they're going to be able to get their payments, their loan payments in time?

MR. BALLINGER: I think so. We're getting into the next presenter, but I'll go ahead -- no, I'll answer your question. I'll be glad to. Because I appreciate the chance to --

COMMISSIONER ARRIAGA: How does value of deferral account for financial needs of the renewables?

MR. BALLINGER: Right. Most, if not all, of the existing renewables were financed on value of deferral methodologies. They were done at a time though when coal units were the standard offer and negotiated that, which had higher fixed costs. So that helped them get financed.

I think the value of deferral will be financed. The portfolio approach that has been proposed would put coal units back out on the streets, if you will, for negotiations and as part of the standard offers. That's the fixed payment stream that a banker looks at to cover the debt.

The variable costs he doesn't want to hear about. He doesn't want to take the fuel risk either. So he looks at the fixed payments on the contract; is that going to cover the debt

that the renewable is looking to borrow? That's the bottom line. So if we get coal units out there priced, even at value of deferral, it'll put enough out there, in my opinion, to get some financing done.

COMMISSIONER ARRIAGA: Thanks.

MR. HUNTER: Madam Chair?

CHAIRMAN EDGAR: Yes, sir.

MR. HUNTER: I'd like to speak on that issue regarding the financeability of the project based on the fixed capacity payments.

I've shown it to my financiers and they've looked over the different options, and we elected to go for an avoided coal plant unit based on the fact of the biomass technology, high capital costs, low fuel costs. At the same time, however, if you're looking at, for example, a combustion turbine plant, you're looking at very, very minimal capacity payments and a variable and unknown energy payment. Now this capacity payment, the fixed amount is what this is essentially going to get financed on because we need to be able to meet our debt service and have a certain debt, you know, coverage ratio. So there is something of an asymmetry if you're putting a renewable plant against, against an avoided unit of CT or combined cycle just based on we have high capacity payments, we have to finance it, you know, to meet those high capacity payments. This offers low capacity payments.

And I agree that, you know, the coal unit is an appropriate way to finance, you know, to use as an avoided unit for these plants, which leads into the idea of having a generic coal unit as the avoided unit.

And I agree completely with Commissioner Carter. It's time to walk the walk. Thank you.

MR. BALLINGER: Chairman --

CHAIRMAN EDGAR: Thank you.

Mr. Ballinger.

MR. BALLINGER: -- if I could clarify another benefit, if you will, of the portfolio approach. I agree with Mr. Hunter that a coal unit would help a biomass facility. They have a high capital cost, low operating. They operate more like a coal plant. However, a PV unit, solar, wind does not operate like a coal unit. It operates very short periods of time. The PV unit is sporadic. It can't serve a baseload, if you will. They may offer a CT pricing for them. And the portfolio approach does that, it puts units out there that may better match the operating characteristics of the renewable and provide for more diversity within the renewable sector.

CHAIRMAN EDGAR: Mr. Moyle.

MR. MOYLE: Thank you. I just had some follow-up questions. Do you know, are all states compensating renewable energy generators using this value of deferral approach?

MR. BALLINGER: I don't know.

MR. MOYLE: Have you guys looked into that?

MR. BALLINGER: I haven't, no.

MR. MOYLE: I don't -- Ms. Clark, on behalf of her clients, filed some supplemental comments yesterday. I don't know if you had a chance to take a look at them. Have you?

MR. BALLINGER: I got through about half of them last night.

MR. MOYLE: Okay. You and I are in the same boat there.

She said on Page 11 of her comments that the, the value of deferral versus the revenue requirements debate was raised and resolved more than 20 years ago. Is that -- do you understand that to be factually accurate?

MR. BALLINGER: It was before I got here. I've been here 22 years almost, but it was just before I got here. I'm thankful. That is my understanding that it was argued. I've read those transcripts and stuff like that.

MR. MOYLE: Okay. All right. And I wasn't here then either. I, you know, this is complicated stuff and what not.

Do you know, do you know, are there other ways in which to consider compensating renewables besides the value of deferral approach or the revenue requirements approach?

MR. BALLINGER: I think that question has been out there. And what we're discussing today is what's been brought before us, those two approaches. There may be others, I mean.

MR. MOYLE: Yeah. And, again, I'm just trying to get information because it seems to me that the Commission is being asked to make some policy. And if they're going to make policy to encourage renewable generation, you know, I would urge a debate and a discussion to consider all the potential viable approaches to fund renewables. You know, revenue requirements and value of deferral seem to be two that have been previously considered. There may be others. I don't know the answer to the question.

MR. BALLINGER: There are others that are not at the jurisdiction, if you will, of the Commission. You have tax incentives, federal tax incentives that help finance renewables, you have a secondary market called TRECs, tradeable renewable energy credits, that help finance renewables and promote them. We have green pricing programs in Florida, one that purchases TRECs to promote renewables through the nation. So there's a variety of other streams, maybe not just how do we pay for power. There's other financing mechanisms out there.

MR. MOYLE: Are you aware of anything in Florida law that precludes TRECs being considered by this Commission?

MR. BALLINGER: My personal opinion is the TREC is the property of the renewable and he can sell it, trade it however he wishes.

MR. MOYLE: Well, what I was trying to -- I know you're not a lawyer, but is there anything that says,

Commission, you can't even consider this; you know, take this off the table, don't even consider it as an idea?

MR. BALLINGER: I don't know how the idea of a TREC would fall into the price of energy. They're two different animals.

MR. MOYLE: I was just following up asking about ways to pay renewable generators. You said tax credits, TRECs, and I was just following up to see if, if you were aware if that could be part of the conversation.

Let me move on a little bit. You had talked about a roof analogy, and I think that's a good analogy. But you would agree with me, would you not, that if a roofer comes out and puts a roof on a house, that the roofer ought to be paid after he completes his work in a timely fashion for the roof?

MR. BALLINGER: Yes.

MR. MOYLE: And to sort of walk through an example, you know, there's this article on tides. Let's say somebody comes up with a technology that they can use the Gulf Stream for renewable energy. And they say, you know what, in 2007 I'm going to be able to provide 100 megawatts of renewable energy that will be baseload, the Gulf Stream is always running, and I'd like to be paid for that when I provide the service. Are you with me?

MR. BALLINGER: Uh-huh.

MR. MOYLE: If I understand sort of what's being

proposed now, if that generator showed up to Gulf and said, you know, let's try to work this out, and wanted to try to get it financed through a coal unit, would they be able to do that?

MR. BALLINGER: If under the proposed rules Gulf had a coal unit in its plan, yes.

MR. MOYLE: Okay. And Ms. Clark filed something that shows Gulf does haven't a coal unit in its plan, in its proposed plan. Are you familiar with that?

MR. BALLINGER: Yes. That was based on last year's Ten-Year Site Plan.

MR. MOYLE: So Gulf doesn't have a coal unit presently. So with respect to trying to finance it plugged to a coal unit, the new Gulf Stream guy wouldn't be able to do that, would he?

MR. BALLINGER: Correct. But our current rules also allow transmission access to every utility in the state. So, for example, FP&L has a coal unit, TECO had a coal unit and so did Progress, so they could work with one of those utilities.

MR. MOYLE: And they get charged for that wheeling charge, would they not?

MR. BALLINGER: That's a FERC-regulated tariff, yes.

MR. MOYLE: Okay. The -- you know, you had made some comments about financing. I don't know if you're the best person to ask this question of. The gentlemen from Green Coast had a couple of questions. But if I understood what you said,

you said back in this value of deferral approach that was done 20 years ago, that that was used to finance some things because they were all pegged to coal units; correct?

MR. BALLINGER: No. What I said, it wasn't used because they were. I'm saying that the existing units today, most of them were financed under the value of deferral methodology. It just so happened at that time there was a coal unit out there pricing the value of deferral.

MR. MOYLE: Was it the statewide unit?

MR. BALLINGER: For some of them it was, yes.

MR. MOYLE: Okay. But in financing, you would agree with me, would you not, that longer term contracts are better to finance from a lender's perspective than short-term contracts?

MR. BALLINGER: I don't know. As a banker, when you get a longer term contract, there's that much more risk that that person has to perform to pay his debt.

MR. MOYLE: That's a fair point.

The idea on the coal though, with respect to the approach proposed by staff, if a, if a utility doesn't have coal, then you've got to look for a utility that does and then wheel it over there; is that right?

MR. BALLINGER: That's correct.

MR. MOYLE: Okay. So if the wheeling charges became prohibitively expensive, then, you know, it could be, if coal

is not available, you may have a situation where people aren't locating renewables in Gulf's territory.

MR. BALLINGER: And that's the same thing a utility faces of where to locate a plant. You have transmission costs. It's a fact of life. We'd love to locate every generating plant right next to the load center. We can't do it. We have to pay transmission. That's part of the economic decision that we have to make to get the least-cost alternative for the ratepayers.

Again, I agree with Commissioner Arriaga. We're kind of bound with the balancing mandate from the Legislature. Encourage renewables, but at the same time minimize cost to ratepayers. And I think staff is trying to do rules that go beyond, well beyond what we've had in the past, but maintain that balance.

MR. MOYLE: Okay. The final question on the hypothetical guy who is using the Gulfstream. If he were able to do that in 2007 and was providing that energy, I mean, the capacity would have value that would be relied upon by the utility, correct?

MR. BALLINGER: If it was on-line in the year that the utility needed, yes.

MR. MOYLE: Well, but it would have value on the year it was being delivered, as well, would it not?

MR. BALLINGER: It would be excess capacity at that

time. I mean, it's a larger reserve margin.

MR. MOYLE: And that is of value, is it not?

MR. BALLINGER: Some. It is extra cost, too.

MR. MOYLE: We had the debate about the reserve margin of 15 to 20 percent, and I think the utility said more reserve margin is better than less.

MR. BALLINGER: Actually they were saying less is better.

MR. MOYLE: Thank you, Tom, for the discussion.

CHAIRMAN EDGAR: Mr. Moyle, are you done?

MR. MOYLE: Yes, thanks.

CHAIRMAN EDGAR: Mr. Zambo was first; and then, Mr. Wright, we will come back to you.

MR. ZAMBO: Mr. Ballinger, I just wanted to clarify -- and, Madam Chairman, tell me when, I'm not sure where that line is between --

CHAIRMAN EDGAR: I recognize that it is subjective, but I'll let you know.

MR. ZAMBO: I'm looking at your chart, the value of deferral where you have the two block diagrams, and it seems to me like the longer you can defer a plant, the less cost there is to the utility, is that what this is showing? For example, you have got zero to 30 years, 30 to 60, 60 to 90. At the end of the first 30-year period, the utility has to incur a big cost because of inflation, and then 30 years later he has got

another large capital cost involved. So does that indicate or does that mean that the longer the contract with the renewable energy facility the lower the cost would be to the utility? I mean, the longer you can put off this need to invest.

MR. BALLINGER: The more value there is to the utility the longer you can put it off.

MR. ZAMBO: So why would you limit the term of a contract to the useful life of the avoided unit? Why wouldn't you let it go beyond that so you could put it off even further into the future?

MR. BALLINGER: Theoretically, you could. I mean, we are trying to keep it somewhat in bounds of reality. I haven't seen somebody asking for an 80-year contract.

MR. ZAMBO: But we seem to be arguing about whether we can have more than ten or not. I mean, that's one of the issues here is whether we can have a contract greater than ten. It seems like if you are saying you need to leave that to the utility, then the utility, if it chooses something less than the useful life, they're actually, it's going to cost their customers money.

MR. BALLINGER: You have jumped ahead a little bit. The statute required a minimum of ten years, it did not address maximum or anything like that. Our existing rules are silent on who selects the term, let me make that very clear. There was discussion, and recent history has been the utility has set

that term, and shortened it to five years, basically. Staff is now proposing that we think the renewable should be able to select the term up to the life of the unit. So we think that is an option that should be the renewable generator. I think it will go a long way in helping financing. We have listened to that, the term is something. And they have different business models. They are going to have different terms, and let them pick it, up to the life of the unit. So we're trying to keep some bounds on it to make it somewhat reality.

MR. ZAMBO: But even going beyond the life of the unit would be beneficial, right?

MR. BALLINGER: Theoretically, yes.

MR. ZAMBO: I want to ask you one more question. Mr. Moyle referred to the IOUs' supplemental testimony. Do you have that handy?

MR. BALLINGER: I can get it.

MR. ZAMBO: Well, I tell you what, I will just defer that to a later point.

MR. BALLINGER: I've got it. I have it, Mr. Zambo.

MR. ZAMBO: What strikes me about this is if you look at the next to the last page, there's a chart that -- a table, I guess. It's revenue requirements versus value of deferral methodology. And you've talked about how the value of deferral strikes this balance and it addresses the interests of the utility and the ratepayers and the renewable energy facility,

and yet when I look at this chart, I look at the column that says total revenue requirements. Now, that's what the utility expects to get if it builds a power plant. That's what anybody would expect to get if they made a large capital investment. But what the value of deferral gives us is in the first year it is less than half of what the actual carrying charges are. And I don't understand how that addresses everybody's -- how that addresses and balances the interests?

MR. BALLINGER: I think it comes down to being able to select the term of contract. If you do revenue requirements but you only pick a ten-year contract, you've gained all the benefits of revenue requirements those first ten years of very highly payments and not the last 20 years of lower payments to get the benefits. That's why value of deferral works on that aspect of the disconnect of allowing people to have flexible terms in contracts.

MR. ZAMBO: But if someone wanted to sign a contract for the full life of the avoided unit, are you saying then the revenue requirements would be the appropriate payment methodology?

MR. BALLINGER: I'm not saying it's appropriate. Value of deferral allows and equates to the same present value. Our current rules allow that if somebody wants to do the life of the unit. The present value to ratepayers will do that.

MR. ZAMBO: But from a financing standpoint, again,

I'm just trying to clarify. If I'm financing something, I have evidence here from this column that says total revenue requirement. I have evidence that that is what the utility needs to finance the power plant, and yet you're telling me that you believe it can be financed under the column value of deferral, which your payments start out half as much as they would under the revenue requirements.

MR. BALLINGER: Correct, because a renewable may only want a 10-year contract or 15-year contract.

MR. ZAMBO: Assuming that he wants --

MR. BALLINGER: Then you could look at structuring one under revenue requirements under a negotiated contract. Remember, again, we're talking about standard offers. We're trying to put one that is on the table as a starting point, if you will, as a fallback position.

MR. ZAMBO: One other point. You had mentioned earlier that value of deferral is originally conceived for purposes of determining the value of conservation programs, right?

MR. BALLINGER: Correct.

MR. ZAMBO: Now, conservation programs don't require huge capital outlays up front, do they, like a hot water heater timer?

MR. BALLINGER: They are different because our programs are partial financed through utility incentives which

all ratepayers pay and partially through the participant, so it is not a direct, you know, and you look also at participant tests. If a measure, let's say, has a very short payback, a utility won't offer an incentive for that because the customer should be doing it anyway. And they have found that it is not a wise thing to take other ratepayer money to incent that customer to do that. So there is a little bit of difference. I was talking more from the reliability standpoint of how they impact the system. They are very similar.

MR. ZAMBO: But what I'm trying to understand is if it was designed for conservation programs, which in some cases are actually subsidized by the utility, the utility comes to a customer and says, I will pay you $100 to put window tinting on your windows to cut down your heat load, and the out-of-pocket cost to the customers isn't a real large amount anyway, but the utility is willing to subsidize that. To compare that to a situation where somebody is paying maybe $2,000 a kW to install a power plant seems like there is a disconnect.

MR. BALLINGER: There is a disconnect, and now I understand the question. And the disconnect comes back to this. We're looking at the ratepayer. They are going to pay what the utility would pay otherwise. Conservation and renewable generation are alternatives to a utility building a plant. So you want to look at the cost of that plant. If I can do something a little cheaper, I'll do it. That is the

difference. We're not looking at what does it take to finance a renewable and do that, we're looking at what does it take a utility to provide service. And then that cost, if it can cause the financing of a renewable and get it, great. If it's not, the utility should build it. That is the least cost alternative.

MR. ZAMBO: So you equate renewable energy with conservation?

MR. BALLINGER: They're very similar. They have the same impact on the system. And I think they are both identified under FEECA as conservation efforts.

MR. ZAMBO: One last question. Wouldn't a renewable energy facility typically offset a lot more energy than a conservation program would?

MR. BALLINGER: Yes and no; it depends on the conservation program. Attic insulation is 24/7 saving energy. Load management is not. So they are all over the board.

MR. ZAMBO: Okay. That's all I have. Thank you.

CHAIRMAN EDGAR: Commissioner Arriaga.

COMMISSIONER ARRIAGA: Mr. Ballinger, like Commissioner Carter, I also understand the concept and I like it. And I haven't spoken to my wife about this today, so --

MR. BALLINGER: Don't do it.

COMMISSIONER ARRIAGA: I do understand the concept and it's attractive. But why are you -- in implementing this,

why are you proposing that you leave so many ifs to negotiation when you know that up to today we have not been able to get consensus from the two confronting parties here?

MR. BALLINGER: I'm a firm believer in the market and --

COMMISSIONER ARRIAGA: May I stop up right there, please, because I heard Mr. Trapp say the same thing. But we are not talking about -- we're talking with technical monopolies here. This is not free market.

MR. BALLINGER: I understand. But each project is going to be different. For example, you have an existing municipal solid waste, it's in the ground, it has been financed already. Their contract is going to end in a couple of years. They are looking at just re-upping, selling the same power. That project has been financed. So we don't have the same problem as a new biomass facility, let's say, Mr. Hunter trying to get a greenfield site built and constructed actually has to go and borrow money. You may have a waste-to-energy facility that wants to expand slight megawatts. The capital costs are lower than a brand new facility. So you have all of these different factors affecting everything.

You have location. You have, again, on the waste-to-energy, I hate to harp on it, but that is the bulk of what we have of renewables is waste-to-energy. I think there is about 500 megawatts of firm contract, about 300 of that,

350 is municipal solid waste facilities. So that's our renewables, okay? I think it is about 500 megawatts firm under contract that currently sell to utilities, and of that, that's all renewables, that's about 500 megawatts, of that about 300 or 350 is municipal solid waste. Which is it, Mike? 350.

COMMISSIONER CARTER: (Inaudible. Microphone off.)

MR. BALLINGER: It would be some biomass, a little bit of landfill gas, very small hydro.

COMMISSIONER CARTER: (Inaudible. Microphone off.)

MR. BALLINGER: Okay. 55 of hydro and then some waste heat from the phosphate mines.

COMMISSIONER CARTER: I'm just trying to get an answer to a question I asked earlier. You said it is 55 for hydro. What was it for biomass?

MR. HAFF: Commissioner, the remainder after approximately 350 of solid waste is approximately 55 of hydro, and the remainder is biomass and landfill gas.

COMMISSIONER CARTER: Thank you.

MR. BALLINGER: And we will have those numbers for you in the Ten-Year Site Plan report that you will see in December.

COMMISSIONER CARTER: Thank you.

Thank you, Madam Chairman.

CHAIRMAN EDGAR: Mr. Wright.

MR. WRIGHT: Thank you, Madam Chairman. I just had a

couple of questions that are generally follow-ons to Commissioner Arriaga's questions, and also a little bit of a follow-on to the discussion that Mr. Zambo had with Mr. Ballinger.

Mr. Ballinger, you and I have discussed the issue of payment streams many times over the years, I think. In your second slide, I believe -- you don't need to put it up there -- you identified two problems with revenue requirements type approach. One is that you can have a mismatch of the in-service date and a mismatch of the term of the contract, vis-a-vis the life of the unit.

Now, we'd agree, I'm sure, that if the renewable energy producer or QF were willing to sign a contract that had an in-service date equal to the in-service date of the avoided unit, and a term equal to the life of the avoided unit, that the present worth revenue requirement -- that the revenue requirements payment methodology, starts high, diminishes, would be exactly what the utility would otherwise incur?

MR. BALLINGER: Correct.

MR. WRIGHT: And that the present value, the CPWRRs of that payment stream would also be equal to the VOD payment stream?

MR. BALLINGER: Correct.

MR. WRIGHT: Okay. I really brought that out to try to really clarify for you all what the issue is as to revenue

requirements versus the VOD, value of deferral method. And you mentioned in response to a comment by Mr. Zambo, that if a renewable producer or QF wanted a revenue requirement stream under those circumstance, they could negotiate. And the only question I would ask is would there be anything wrong, is there anything technically wrong with, I mean, it solves your problem, was there anything technically wrong with allowing a renewable energy producer to sign a revenue requirements based contract if the contract by its own terms solved the problems you identified as to in-service date and term?

MR. BALLINGER: I don't think so. And in that negotiated contract you would probably see issues addressed like dispatchability, security deposits, and that's where they need to be. That's where they need to be negotiated.

MR. WRIGHT: My question, and I apologize, I left a couple of words out, is there anything wrong with allowing a renewable producer to sign a standard offer contract as long as it solved your problems? A standard offer contract using the revenue requirements payment methodology as long as it addressed the two problems of in-service date and term?

MR. BALLINGER: Theoretically, yes, I think that would be possible.

MR. WRIGHT: I think you answered the question opposite. Did you mean --

CHAIRMAN EDGAR: Let's try again. I got turned

around.

MR. WRIGHT: That's what I thought. Did you agree -- I suggested that it should be okay for a renewable energy producer, or a QF for that matter, to execute a standard offer contract using the revenue requirements payment methodology as long as the in-service date were the same as the in-service date of the avoided unit and as long as the term was equal to the projected life of the avoided unit. And do you agree that that would be appropriate?

MR. BALLINGER: I see Mr. Trapp wanting to jump in here, too, I think.

MR. TRAPP: If I can be part of the discussion here. Tom has identified two of the areas of concern that's addressed by the present rule, I just want to remind that the current rule also addresses the risks associated with longevity associated with a 30-year contract. And as it stands now, there are two requirements in the rule that I will remind you of. One is that the payments to a cogenerator be constrained by the total of the annual -- the sum of the annual values of deferral during the term of the deferral. But then there is a second requirement in the rule that says that in any year where a payment to a QF exceeds that year's value of deferral, the issue of security has to be addressed. And my understanding of the philosophy of that is that basically the difference between that year's value of deferral and the actual payment that's

made to a QF is a loan. It's a loan. What are you doing to secure the loan?

As you pay value of deferral, because you are paying the money up front and it declines over time, in the business world contracts can be breached. Contracts are breached. So the Commission was concerned in establishing that policy that there be security there to secure the contract in the latter years when the revenue requirements stream had declined to a point where it was no longer attractive for the QF to worry about it, but the value of deferral hadn't been paid up yet. If you understand that, it's basically a banking financial type of concept, protection that is put in the rule.

So that would be the third concern that I would have relative to the existing rule about your example. Otherwise, yes, we agree with you, Schef. Revenue requirements is a fine thing to put out there in a standard offer if you address in-service date matching, life of unit matching, and security concerns.

MR. WRIGHT: If I may, I would like to respond briefly. I don't disagree with that, and I'm glad we agree so far. I think that a -- personally, I'm just suggesting to you that I think a standard offer contract could be crafted that appropriately addressed security. And one of the other facts is that after the cross point between the value of deferral payment stream and the revenue requirement payment stream,

every year thereafter the QF will be paying less than the value of deferral.

I have some doubts about overlaying the value of deferral excess surplus restriction on a revenue requirements methodology. I personally think that it's completely satisfactory that the revenue requirements methodology produces exactly the same revenue requirements and payment stream that the utility's customers would otherwise be paying. And we also have in the contracts, and we wouldn't have any objection at all to the contracts including security provisions and other appropriate provisions, not unduly onerous, but appropriate provisions to ensure against what was the real concern back in 1983. I was on staff. I didn't work on the docket, but I was around the issue and Bob and Tom and I have discussed this many times. The real concern, and it was not -- at that time anyway not an unreasonable concern, was that QFs would come in, take the revenue requirements payment stream for 12 years, kept most of the money and walk away. And I don't think that history bears out that that is really a legitimate concern based on the performance of the independent power industry. But having said that, current contracts even with the VOD methodology have completion security and have performance security requirements already in them, and there's nothing wrong with having such in the standard offers. Thank you. That was all I had, and I appreciate it.

CHAIRMAN EDGAR: Ms. Clark.

MS. CLARK: Yes, Madam Chairman.

I would point out that the issue of the security for the revenue requirement payment is that it assures that the customers will receive the value of what they have paid for. You would have to substantially increase your security requirements under the revenue requirements philosophy. The utilities are regulated by you all, they have an obligation to serve, and they have to be there for the life of the unit. The only way you can assure, and even then there is no assurance, there is a monetary penalty if they are not there. The only way you can assure the same performance on the part of the renewable generators is through your contracts. And that's why the rule has been done that way, and that is why, as Mr. Trapp has said, there are the need for these security requirements if you are going to have these longer term contracts with renewables.

I would also tell you that regarding the revenue requirements, that's an issue that was taken up extensively when the value of deferral was considered. It has since been taken up, I think it was in 2002 or 2003, those same arguments were advanced and appropriately rejected. The other thing I would say is this is a standard offer contract. The negotiated contract could be used to vary the payment streams in a manner that would be appropriate for the particular type of renewable

generator and at the same time protect customers. It would be inappropriate to do that in a standard offer contract.

CHAIRMAN EDGAR: Commissioner Carter.

COMMISSIONER CARTER: Thank you, Madam Chairman. If I may be recognized for a couple of questions. One to Mr. Wright and one to Mr. Trapp, in that order.

CHAIRMAN EDGAR: Okay.

COMMISSIONER CARTER: Mr. Wright, you looked at the rule as it is currently drafted?

MR. WRIGHT: Yes, sir.

CHAIRMAN EDGAR: I was really intrigued by what you had to say about your perspective on the standard offer contract. As drafted on this rule, where do you see that we would have to change this rule to make the recommendation that you say in terms of a standard offer contract being able to meet those terms and conditions such that it would apply and cover the concerns raised by the parties?

MR. WRIGHT: Madam Chairman, Commissioner Carter, to be clear, that is not -- obviously you have read our comments. That is not one of our key issues. It came up in the conversation. It is part of what has been put on the table by some of my brethren on the renewable energy side. And I felt that it was important to illustrate the equivalence of the methodologies. And, for your edification, I think the answer is that you would put it in 25-17.0832(4) somewhere as to the

choice of capacity payments, which I think would fall -- I think it falls somewhere within -- gee, what is it? I'm not sure. With the renumbering and some sections not being specifically identified, it's somewhere in there.

COMMISSIONER CARTER: Maybe 4C or in that neighborhood?

MR. WRIGHT: I think it actually winds up in -- I think it actually winds up in I with the renumbering, but I'm not positive.

COMMISSIONER CARTER: Well, I won't hold you to that, but -- thank you, Mr. Wright.

Madam Chairman.

Mr. Trapp, you understood where I was going on this question based upon Mr. Wright's comments to Mr. Ballinger?

MR. TRAPP: Yes, sir.

COMMISSIONER CARTER: What is your take on that? I mean, it just seems to me that -- it seems like five blind men trying to describe what an elephant looks like and they are all at different portions -- I mean, different locations of the elephant. What Mr. Wright says sounds so simple to where -- I mean, you understand where I am coming from here?

MR. TRAPP: Yes, sir.

COMMISSIONER CARTER: What impact would that have on our rule as it is drafted?

MR. TRAPP: You know, quite honestly, I think the

rule already addresses it. I think it's already there. I think this is a tariff issue. I think if you want a standard offer contract from the utilities that is based on a revenue requirement stream, we can get you one. But I think it is best done as a tariff standard offer. It's allowed by the rules. The rules allow you to structure the payment stream any way you want to as long as it conforms to the principles of don't pay anymore than total value of deferral and pay attention to how you're paying the dollars with respect to security. It's a tariff issue. I can have it for you tomorrow. No big deal.

COMMISSIONER CARTER: Thank you, Mr. Trapp.

Thank you, Madam Chairman.

CHAIRMAN EDGAR: Mr. Zambo.

MR. ZAMBO: At my peril I would make a comment that I believe it is still true, there was at one time a statutory provision that exempts municipal solid waste facilities from the security requirement of excess payments. They are still liable for the payments, but they aren't required to post security. So the issue has been addressed, it has been -- I think it is covered for facilities that are owned and operated by or on behalf of a local government. The recognition being that the full faith and credit of the local government will be there to pay any outstanding liability.

CHAIRMAN EDGAR: Ms. Clark.

MS. CLARK: Yes, I think Mr. Zambo may be correct,

that that does happen for a municipally-owned one. But as he pointed out, they are on the hook for payments in excess of the value received. The other thing that I would point out is -- I just lost my train of thought thinking about what I wanted to say to him. I will think of it in a minute.

CHAIRMAN EDGAR: We'll come back.

MS. CLARK: Okay.

CHAIRMAN EDGAR: Mr. Wright. No. I think it's time to take five. Up here we need to take five. A short break and we will be back.

(Recess.)

CHAIRMAN EDGAR: We'll go back on the record. And, first, Ms. Clark, I think we left off when you were going to make a further comment.

MS. CLARK: Yes. I was trying to remember what my comment was. There are a couple of things I want to say with respect to the proposal of the revenue requirements. First of all, Mr. Wright has suggested that, you know, renewables have proved themselves to be -- rather, QFs have proved themselves to be reliable. It reminds me of what you hear when you buy stocks, past performance is no guarantee of future performance. That is why you have to cover that in contracts. QFs may find themselves in a situation where they have gotten the high payments up front, they become lower through the life of that contract, and they start losing money. They have the incentive

to default at that point. And QFs have faulted.

The other thing is revenue requirements would work only if the size of the unit that is being contracted for is the same size as the unit being deferred and it is for the same term. Otherwise, the unit is not avoided, it is only deferred. That is why it is not appropriate to use that methodology in a standard contract where you are going to have varying terms and varying size of megawatts being offered. Thank you.

CHAIRMAN EDGAR: Okay. In the interest of trying to accommodate a variety of scheduling requirements and perhaps even some hunger pangs, I'm going to propose that for the next little bit we do it a little built differently and see how that works. And, so I'm going to recognize Ms. Harlow in just a moment to give her presentation.

What I would like to request, and like I said, we will see how this works, because I do want discussion and I do encourage it. We will ask her to do her presentation. I would like to ask you to hold your questions. After Ms. Harlow's presentation, then we will hear from the next speaker on the agenda, Ms. Glickman. Then we will break for lunch and when we come back from the lunch break we will take up any questions to Ms. Harlow or on her presentation.

Ms. Harlow.

MS. HARLOW: Thank you. I will try and be brief. Much of this has been covered earlier today in the questions

and by my co-workers here. My role today is to discuss the existing rule, the statute, and how the proposed rule meets the intent, in our opinion, of the statute, and also how we think it moves us forward from status quo with, in our opinion, significant opportunities for renewables.

The first point in the statute is that these contracts be continuously offered. That investor-owned utilities continuously offer a purchased contract to producers of renewable energy. Under our current rule, these contracts are issued on an as-needed basis. We typically see them soon before a utility is going to issue a request for proposals on a planned unit that's subject to a need determination. The contracts would have an open -- what is called an open solicitation period. These are typically, in our recent past, two to three weeks, that is when the contract is open. They are filed before the Commission, the Commission approves them or disapproves them, and if they are approved you have this open solicitation period. What this means is the renewable or qualifying facility has a very short period of time to jump on this opportunity. They have to know what type of contract they are interested in and be ready to sign on the dotted line within a very short period of time. And this introduces a lot of uncertainty into their planning process.

Under the proposed revisions the staff has proposed a methodology for new contracts to be filed that we think

introduces much more certainty for the renewables. On every April 1st, concurrent with the filing of the ten-year site plans, we would have new contracts filed. Those contracts would be based on a portfolio of units, and they would be -- the units would be established according to the utility's plans on a going-forward basis. There is also a process in the rule for when the contracts would close.

And in order to meet the concerns of the renewables, we made a change in the proposed rules to require utilities to file a new contract before they close an existing contract. As I was saying, we believe this offers new opportunities to renewables. First of all, the contract is available on a continuous basis. This is per the statute, and the staff also believes this is a great idea. It increases certainty. You don't have that speed of reaction need by the renewables that we had in the past.

Also, if you combine this with the portfolio approach that the staff is suggest, you see much more information available in these contracts that are open continuously. The renewables would have information on a continuous basis on the utility's avoided costs, and that would promote, in our opinion, negotiations.

Moving on to the next slide, the statute also states that the payment provisions should be based upon a utility's full avoided costs. Avoided costs are defined under the

current rule as the utility's next avoided unit in their plan. In the recent past what we have seen is these were natural gas units. They were either combustion turbines which, as Mike Haff discussed, have low capacity payments and high fuel, but that fuel is difficult to predict. And also combined cycle units, which have a higher capacity payment and lower fuel on a per kWh basis.

What the staff is suggesting as we have discussed previously today is the portfolio methodology. Under this methodology, the utility files a contract based on each technology type in their upcoming site plan. So what you would see, for example, if you had a utility that had five units in their ten years, they had two combustion turbines, they had two combined cycle, and they have one pulverized coal unit. We would see three contracts filed based on the first combustion turbine, the first combined cycle, and that pulverized coal unit.

This gives renewables an opportunity to find contracts that have various pricing and timing and operating characteristics. We think this expands the opportunities for renewables. It might meet different timing needs for when they plan to put their plans in, and also different renewables have different operating characteristics, and in our opinion it is more likely that various types of renewables, some of them are perhaps not even developed yet, so we can't see all of those

answers, that these contracts, a portfolio of contracts would be more likely to meet the operating characteristics and timing needs of various types of renewables.

The statute also states that the contracts should provide a minimum contract term of ten years, a contract term of at least ten years. The current rules have a minimum term of five years up to the life of the unit. What we have seen in recent contracts is that the contract term was five years. The staff has provided language in the proposed rule that the minimum term is ten up to the life of the unit. As Tom said, the rule is currently silent on who selects that term, and Tom also discussed that the staff is prepared to propose that the renewables should have the option of selecting that term.

Of course, what we are seeing here is we have various renewable parties and they are not all of one mind, but there is some agreement across the parties on various issues. But we have seen a theme in the comments over the past year as we have worked through this process, so staff wanted to discuss some of the themes of the concerns that the renewables have and address how we think the rule meets those needs.

The first question was will subscription limits as we have proposed hamper the development of renewable generators? Staff's opinion is no, we don't believe the subscription limit set equal to the size of the unit will hamper development. Why not? Well, first of all, in the recent past we have seen

subscription limits as little as five megawatts. The highest we have seen recently is 20 megawatts. If you have a subscription limit of that size, Mr. Hunter's biomass plant, which is approximately 42 megawatts gross, could not sign that contract for his new unit he's proposing.

Under the current proposed rule, if you set that subscription limit equal to the size of the unit, that contract would be available for Mr. Hunter's proposed plant. He could sign on the dotted line for his entire capacity. Now let's just put this number in perspective. Again, I said that we had recent contracts at just five megawatts. Well, another number to look at is that our utilities currently have 500 megawatts approximately, as Tom also discussed, under firm contract with renewables. Well, if you look at when the Commission initially proposed this methodology for specific contracts, we would have opened up 5,000 megawatts of contracts. That is ten times what is currently under signature firm contract with our utilities, and we think that that is a significant opportunity for these facilities. We do not feel it's a status quo.

Also, going back to the portfolio approach, excuse me. Another number to put this in perspective is biomass plants. We have recently seen a lot of development, talk of development of biomass plants in the state. How big are these plants? Tallahassee just signed a contract for 30 megawatts. Mr. Hunter has a plant with 42 megawatts gross he's discussing.

The Progress contract that the Commissioners recently signed that uses e-grass as a fuel and turns that e-grass into a synthetic oil is 130 megawatts. So let's compare that number to our subscription limit we have. Five thousand megawatts were on the table a year ago.

Next slide. Another theme we have seen and we think this is an important theme, will the proposed rule allow renewable generators to obtain financing. We think that the change that we made that Mr. Ballinger discussed that allows the renewable to select the term of the contract will go a long way toward meeting their financing needs. This slide contains language that the staff would propose to implement this change. It says the qualifying facility shall have the option of selecting the contract term between ten years and the life of the avoided unit. I would also like to say that Mr. Wright gave us specific language in his comments and the staff is indifferent between the two languages and we appreciate his providing us with that specific language. Another issue on financing. Value of deferral, as Tom discussed, allows the renewable to begin receiving early capacity payments. We think this could help with financing needs.

And, finally, Mr. Hunter has suggested in his comments at the past workshop that there be an option for a fixed fuel payment. Not just fixed capacity, but also fixed fuel. The staff has had extensive discussions on whether we

felt like this belonged in the rule or not. We understand Mr. Hunter's concerns. We considered shifting a portion of that variable fuel price into a fixed payment that the utility could get, and the result of our discussions were it really depends on which renewable you're talking about. What percentage of that fuel payment would have to be fixed in order for them to get financing, and it is very difficult, in our opinion, to set up a standard offer contract that would give you that flexibility to do that to meet the needs of all renewables. And because of that, we believe that that leads more to a negotiated contract.

Finally, another common theme we heard was should avoided costs be based on a single statewide avoided unit. Our opinion is no. We feel that the Commission has been over this in the past, there were difficulties with this methodology. We don't feel it appropriately represents avoided costs for each utility.

Finally, on a more positive note, we believe the portfolio approach gives more types of renewables more flexibility. If you have a statewide unit, that's a single technology type, and that is the same problem that the staff felt was there with a single unit approach.

And, finally, it's our opinion that under the current rules, even though we don't have a statewide unit, according to Mr. Zambo comments, set up the way Mr. Zambo has defined

statewide avoided unit, we do have access to all of these contracts for renewables all over the state as long as they pay the transmission cost under the FERC's rules.

And I believe that concludes my comments. I would like to let the other speakers know that as you come up, you don't need to stand at the podium. If you would be more comfortable, stay where you are, or you can come up, however you wish.

CHAIRMAN EDGAR: Thank you, Ms. Harlow.

As I said, I'm going to ask that everybody hold their questions. I also ask that you remember your questions, because I expect that there will be some, and I'm hoping that there will be some. So we will come back to that. But, again, in the interest of time and as to other scheduling requirements we will do that after the break.

Ms. Harlow, you are going to be here after lunch, right?

MS. HARLOW: (Indicating yes.)

CHAIRMAN EDGAR: Thank you.

Ms. Glickman, you are recognized.

MS. GLICKMAN: Yes, Madam Chair. I'm very grateful to you for accommodating my schedule being on the road for five days. I really appreciate that. I'm here to speak to a couple of issues related to the actual proposed rule and then a couple of the other topics that had been raised in the September 21st

memo, that being renewable trading credits, the carbon taxes, and the goals for renewable energy. But I think it is important to echo what Senator Bennett had to say, because I couldn't agree more, that we do a true disservice to both society and what he articulated as the legislative intent when we assume that customers will pay more for renewables. I think it's just more complicated as some of you have inferred here today.

He made a couple of points on that. Ironically, even though we call them ratepayers, ratepayers don't really pay a rate, they pay a bill. And I think that when this whole area of renewables and efficiency and conservation evolves, it is all going to come together that when renewables are matured and developed, that's going to drive the cost down. I'm going to give my age away, but when I was in high school my parents bought an Amana radar range. It was like a very big thing. It costs $1,000 to get a microwave oven. So we know where that has come, and that is a volume issue. And we don't have the luxury of that quite yet, so I think we need to keep in mind, you know, American ingenuity and the God given intelligence that we all have to sort of mature these technologies.

So you combine that with driving the cost of the renewable energy itself down with efficiencies and conservation, and you are going to find consumers paying less. And I think we have to look at the big picture just at the

beginning here while we are getting this started. I'm reminded that in December of last year when the Governor held an energy forum, the Department of Environmental Protection passed out pie charts. And of the 51 percent of our electric use in Florida, 51 percent of that goes to residential. Of the 51 percent, 20 percent is used for swimming pools. Of the 51 percent of our electric generation that goes to residential, 20 percent goes to swimming pools. I've got believe that we can do better. And we are spending a lot of time, obviously, talking about the renewables that are sort of in the pipeline here, but I would say there is a role for solar panels for swimming pools somewhere in moving us away in the state of Florida.

The other thing that Senator Bennett mentioned that I don't think could be emphasized any more is this cost of the externalities that no one talks about. And whether we are talking about the air pollution, the asthma, the lost work days, the emergency room visits, the cardiovascular issues, or global warming, the costs to Florida which is on the first line of the implications of global warming, and we are already seeing this, is unimaginable.

Those are costs that the ratepayers are going to pay. And I understand that that might not necessarily be in the narrow sort of rate and reliability focus, but those are the costs that the customers will pay. And I will add to that, and

I will get to it a little more in a minute, which is the cost of carbon. I remind you that in California they have managed to keep energy consumption flat for the last 30 years because of a whole lot of regulatory things that they are doing. Believe you me, those customers are paying less and not more. I thought, generally speaking, that the proposed rule was good, albeit an incremental first step.

Contracting is, sort of, one element, but there is a much bigger picture, and it is clear that you all understand that. I look forward personally to work with all of you all and staff and also to bring in more technical help and resources, people that are far more expert than I am on the technical aspects of it, but there are a lot of resources out there to help us dig into this new territory that we find ourselves in.

Increasing Florida's reliance on renewable energy is really going to result in a more stable energy bill for consumers. It's going to help protect customers from future increases in natural gas and electricity prices and from the cost of meeting these future environmental regulations, such as the limit on global warming, the cap on carbon that's coming down the road, and mercury pollution. Renewable energy technologies are not subject to these risks and they have more stable and predictable long-term costs than coal and natural gas power plants.

Projected improvements in renewable energy technologies, along with the policies that encourage renewable energy development will drive down the costs of renewable energy over time. In its current form, the rule does not fully recognize the nature of the developing technologies and even the need for market calming mechanisms such as risk contracts to allow for the development over time of redundancy and time in the multiple systems as, again, this technology matures.

The renewable industry is still relatively new in Florida, and we can learn from a recent report by the California Energy Commission. It examined renewable energy contracts from California and 21 other North American utilities, representing more than 21,500 megawatts of renewable energy contracts. The report is called Building a Margin of Safety into Renewable Energy Procurements, A Review of Experiences with Contract Failure. The staff may have looked at this. If not, I can give you all of that information.

The report finds that contract failure rates vary considerably among utilities across situations and by technology. The data suggests that a minimum overall contract failure of 20 to 30 percent should generally be expected for large solicitations conducted over multiple years, and ongoing monitoring of contract failure is highly recommended. It seems to me with this high rate of failure that it would be useful to really scrutinize the different approaches used by these

utility purchasers to mitigate contract failure.

Both the federal government and private industry can provide risk mitigation techniques, insurance being one of them. That's available to renewable energy developers. For instance, they have crop risk management tools, so obviously if there is a problem, a failure with the crops, that they have got some backup for that. And there are also operational risk management tools.

Without this option, the only mature renewable industries in Florida able to meet the rule provisions are waste-to-energy plants and landfill gas. And since I have certainly heard from this conversation today we want to get beyond what we're doing, not to diminish what is already going on, so we really need to look at that. These risk management techniques and financial instruments need to be recognized in this rule, or it is unlikely that these techniques can be recognized in the contracts, and thus creating a higher risk of failure.

I wanted to mention the issue of carbon taxes. The memo also states that it's premature to consider carbon taxes. And while there is no regulation yet, carbon constraints are on the horizon. In June you all heard from the Natural Resources Defense Council science director about the financial risk of carbon, and I wanted to remind you that last year the U.S. Senate adopted a sense of the Senate resolution that comes to

some consensus on global warming, and they move on to look at the design elements of a mandatory greenhouse gas emissions trading system. They have a 14-page white paper that I would be happy to provide.

So the good news is the Senate is moving on to solutions, and I think that, of course, with the elections this week, I just have a feeling that you are going to see a lot more on these kinds of energy issues and global warming in the U.S. Congress. And even the Florida Energy Commission, I'm proud to say the legislature had the wisdom to establish and charge them with developing a greenhouse gas reduction plan for the state of Florida. So that is coming.

So carbon costs need to be recognized in this rule, so when the credits become regulated the rule will accommodate the role that carbon constraints or taxes will play and be able to react to that new instrument. And I think the bottom line is that when you compare the costs of utilities, when the real costs, be they the actual costs, like carbon, or the externalities like public health implications are factored in, the renewables don't look so, you know, cost in-effective because you are going to get a more level playing field with that.

Also, they mentioned the tradable renewable energy credits. Many states allow utilities to comply with the RPS through tradable renewable energy credits. The tradable

renewable energy credits were not included. And as staff stated, they felt that they were a new concept in developing. I'm sure there is room for argument, but I would disagree with that. TRECs are operating in both regulated and unregulated environments, they are recognized and fully vetted instruments, fully controlled and audited, and they are currently being traded in Florida. Lakeland, the City of Tallahassee, JEA, so I think that's something we might want to dig into a little bit more.

And, lastly, I want to mention the issue of setting goals. And, of course, pursuing the development of renewable energy goals which we all commonly call renewable portfolio standards. I think it is imperative that this standard be defined in a way to really develop the broadest range of renewables. And to do so, you must bring together a broad set of stakeholders and experts to participate and expand the level of participation. There are 23 states and the District of Columbia that have adopted renewable portfolio standards. The standards range from modest to ambitious, and definitions of renewable energy do vary. Nine states do not include energy from garbage incinerators in their RPS. Seven states actually have specific requirements for solar as parts of their goals. So they have a goal within a goal. With the elements of those policies, while they are all different, renewable portfolio standards have the potential to jump start and open up the

renewable market.

But like most things in life, the devil is in the details. So in any deliberations over an RPS, the goal must be to develop the broadest range of renewables. And, frankly, we have a lot of other states in which we can follow along. We are not really out in front on this, so let's borrow from their lessons learned. Let's see what they are doing, what is working well, and then we need to combine that with the unique characteristics of Florida.

It was mentioned, wind energy for instance, we do not have on-shore sustained winds, so we don't have that as a resource. Hopefully some of the offshore will develop. Some of these efforts have been particularly successful. For example, Connecticut increased its RPS in 2003, extending the standard to all utilities in the state. Iowa already met its standard in 1999. New York is on its way to meeting its goal of 25 percent of its electricity from renewables by 2013, and that was first announced by New York's governor in 2003.

New Jersey's renewable portfolio standard is one of the most aggressive in the United States. It requires each supplier and provider serving retail customers in the state to include in its electricity. It sells 22.5 percent qualifying renewables by 2021. I think that one of the things that you will want to look at as you are looking at a standard will be this idea of a particular solar requirement, because I do think

that we are going to have to really make specific, if we want to develop some of these alternatives, and I think there is a great opportunity for that.

So, once again, Madam Chair, I really appreciate your courtesy to me in allowing me to speak. Thank you.

CHAIRMAN EDGAR: Thank you.

Commissioners, any questions for Ms. Glickman?

COMMISSIONER CARTER: (Inaudible.)

CHAIRMAN EDGAR: My understanding is that she will not be here this afternoon.

MS. GLICKMAN: Yes. I have a 2:45 flight, I'm sorry.

CHAIRMAN EDGAR: Commissioner Carter.

COMMISSIONER CARTER: Thank you, Madam Chairman.

Thank you so very such.

MS. GLICKMAN: Sure.

COMMISSIONER CARTER: I sincerely appreciate your passion for the protection of the environment as well as dealing with this necessary perspective. I had asthma at age 12, and my 72-year-old sister who lives in St. Petersburg, she still suffers with it. So a lot of times we're here talking about the nuts and the bolts of industry, and we don't look at the fact that there are people on the other end of it, so I appreciate your passion.

I think that we do need to look at how to do a better job. And I don't know if you were here this morning, but one

of my comments is that we need to do something. And, I mean, this rule is a good start. The Chairman mentioned about some of the other things that we are going to be doing later on, and we sincerely appreciate if you could come back with us when we do those other things and give that to us.

You have heard the discourse this morning. Do you really think -- well, let me just ask you this. What would you put in the parameters of coming up with some -- what would be your standards that you would impose, if we're going to set any kind of goals, what would be the fundamental standards that you would import in those?

MS. GLICKMAN: Well, I think we need to look at the fundamental process of bringing a wider group of stakeholders to the table. And I don't mean to sound flippant when I say when there is a notice in the Florida Administrative Weekly, I'm not sure everybody gets to see that. I don't know, you know. So I think it's really going out of our way. And I already had the sense that you are probably going to be looking at renewable portfolio standards and goals in maybe another -- you said a meeting in January where this is going to be developed. So I think let's work together to do that. Let's look at -- I mean, I have a map right here of what all the other states are doing. It is very easy. We can look at who is doing what well.

You know, I happen to work with a large national

organization. So, you know, we have a nationwide perspective. So, you know, you look at the map and you can see it from here, there is nothing in the southeast. So, you know, it's time. So I think it has to be a goal, a specific amount. I think it has to be a time certain. I think we have to look slightly differently at some of the -- you know, there are different kinds of renewable energy. There is clean renewable energy, and there is renewable, and there is a balance. And, I mean, I think, again, it's going to have to be a balancing act.

Florida has some limitations as to our opportunities. I think it is one of the reasons why the waste-to-energy industry has grown, but we need to be doing some other things. And we need to create a playing field that takes into account these costs, these externalities that we sometimes either don't pay attention to, or don't dismiss, or because they are not right in front of us.

So I think it's a goal, it's a time certain. And I appreciated what was said earlier about the issue of conservation and efficiency. We need to, in a regulatory way, look at conservation and efficiency as a resource, as a utility resource. So if the average person in Florida uses twice the electricity of the average person in California per capita, which they do, and California has maintained a complete flat -- I mean, that's a great state to compare us to because they are not -- they are doing really well economically, so nobody is

suffering in California.

And we should look at the job creation. Arizona just came up with a climate plan, and their stakeholder group was very broad and diverse, and they indicate they could have as many as 300,000 new jobs based on development of renewable in these new industries. And I can provide you with all of those information.

But that is what I would like, is I would like an opportunity where we can really dig down and bring everybody to the table. That's the utilities, the conservation community, and the people who really understand efficiencies, conservation, and the development of renewable. Lakeland Electric has a solar thermal program where they own the solar hot water heaters. It actually passes RIM, which I think RIM is another discussion, the rate impact measure, the cost benefit test. You all look at efficiency and conservation.

But let's learn from that program, and that might be something that the utilities want to take up where they actually, like Lakeland, own the solar hot water heaters. And solar hot water is a no-brainer. That is 20 to 25 percent of the average person's utility bill. So I strongly believe that you can do this by saving costs to customers, and saving money, and right now most people -- and it may not be, you know, the people in this room, but most people are suffering tremendously with their taxes having gone up, their insurance going through

the roof, their gas prices are up, and now we are socking them with even higher electric bills.

And, again, it's not a blame thing, we are all in this together. Thank God the utilities provide electric electricity. I, for one, am not ready to give up my air conditioner just yet, you know, as much as I would like. So I think we have to have a we're-all-in-this-together attitude. And we have no choice but to do something. This isn't a luxury. And, yes, we have done some things the old certain way for the last 20 or 30 years, but it is a new day dawning. And the practical realities of what climate change is going to mean to Florida is sea level rise and what it is doing to everything from our fish, our habitat, to coral reefs, to dengue fever (phonetic) and malaria, I mean, it is unimaginable kind of a nightmare. And it is just time that we come to the table and reality.

And you know I have come to you all before very concerned nationally that the utilities are looking to get under the wire of carbon constraints by putting up 154 coal plants. I happen to think it's immoral. And so I'm concerned about the couple of coal plants that are being proposed here. And, of course, we will deal with those on a one-by-one basis, but it is a big mixture of issues. The problem with energy is there is not a simple silver bullet. Solar is not going to solve the problem, you know, but it's a piece of the puzzle.

And we need to be thinking differently about distributed generation, so you are not losing all of that electricity with the transmission and the line loss. I mean, we're just going to have to get really smart about it and understand we are all in the boat together and move toward solutions. And we have lots of other states to look to, and also other countries that have done a far better job than what we have done.

So, I just think it is time to roll up our sleeves. And I offer not only my help, but our colleagues, like my colleague Leon Jacobs, who has some more technical expertise than I, and lots of other folks. The Florida Solar Energy Center, as you all know, is a tremendous resource. They should be in this room today, right, talking about the role of solar. But I think solar hot water heaters, which I am proud to say I just got a solar hot water heater, and I got a solar-powered attic fan. And, you know, a solar-powered attic fan, it lowers the temperature of your whole house, so it makes your air conditioner not have to work as hard. I mean, what a genius idea that is, and it is not expensive.

And when you get a 30 percent federal tax credit, and you get a rebate from the state, and now I understand, of course, after I have paid for it, Progress is now going to have another rebate. So I've got to see if somebody from Progress can help me out there. But I'm just saying these are simple

things. It overlaps with the issues of insurance and all the things about fortifying our homes that the Governor is working very hard to do. I mean, this is not an exclusive thing.

Someone mentioned the Governor's Commission, the Century Commission on sustainability. It would be sad and laughable if we did not have climate change and sea level rise and all of those things on the agenda of the Governor's Commission on sustainability. It is looking at 50 and 100 years. It would be irresponsible, actually. So I think we have to take these issues and integrate them so when you are building new homes, efficiency, solar, it would be insane not to build new homes without solar hot water. I mean, it would just be silly. So I think we just have to be adults, and, as we say, take our medicine and do it as best as we can.

COMMISSIONER CARTER: As a beneficiary of integration, I'm with you on that. Thank you for your time.

And, Madam Chairman, thank you for indulgence. And let me just say that we are, as a Commission, committed to being not just one of the leaders in the country, but we are committed to being the leader in the world in renewables. And also a leader in the world in the protection of our environment, because that is what makes Florida Florida. Thank you so much for your time.

And thank you, Madam Chairman.

CHAIRMAN EDGAR: Thank you, Commissioner.

Are there are any questions from any of the other participants for Ms. Glickman?

MS. GLICKMAN: Leon Jacobs had a comment to add to that.

MS. CLARK: Madam Chairman, could I just ask Ms. Glickman something quickly?

CHAIRMAN EDGAR: You may.

Let's do questions, and then we will come back.

MS. CLARK: You mentioned renewables and clean renewables. Can you tell us the difference and where each type falls, and why they fall in the other category?

MS. GLICKMAN: The point I was making is there are a number of states that do not include incinerated garage as part of it, so people with different states define it differently. So there are some toxics involved and some air emissions, so I don't want to get into a debate over that, because I don't think this is the proper forum, but I'm just saying these are the issues. That's why you need to sort of dig into it. So there are some renewable energies that are cleaner than others, that's all.

CHAIRMAN EDGAR: Commissioner Arriaga.

COMMISSIONER ARRIAGA: Thank you.

Ms. Glickman, you mentioned the TRECs, and I think I heard you say that they are a very well-known financial instrument. They are tradable. It is used. What would you

recommend that we include in a rule, if at all, to make this a more participatory or to promote the use of TRECs, because it is not included as it is right now?

MS. GLICKMAN: I think it's opening the door so that -- I'm not prepared, but I could get back with you with some actual suggested language and work with staff. But I think it is not excluding it at this point. Maybe, again, it is taken up in a different place, or, you know, whether or not it is this particular rule that deals with the credits, but it seems to me that that is an instrument where people can, you know, meet these renewable standards that you will theoretically be setting. So I just don't want to close the door on that when you have JEA and the City of Tallahassee and others already trading them. So it's an accepted form of trading.

COMMISSIONER ARRIAGA: Okay.

CHAIRMAN EDGAR: Commissioner Tew.

COMMISSIONER TEW: Thank you, Ms. Glickman. I had one quick question, I think, for you. You mentioned that this was part of an incremental approach, and I think you had some nice things to say about the direction we're going in. And I just wanted to ask you, do you think it is preferable to move ahead with some version of a rule, even if it's not the optimum of everything you would want to see Florida do, rather than to postpone rulemaking at this point?

MS. GLICKMAN: I think you have two separate things on the table here, and I think working out rules so that the generators who -- renewable generators who already are in business can actually make arrangements with the utilities and have the protections they need and everybody works out a contract, I think that's one conversation. I think the other is a bigger conversation. So it's not to suggest -- and the folks that are doing these contracts are going to have a much better, you know, notion of this. But I think that we are selling the whole thing short if we think it is only about a contract between the handful of renewable energy generators that we have now. Then it is sort of missing what the legislature has asked you all to do, and I don't think you are missing that, because there has been a lot of conversation about that.

So I think there are -- in some sense it's two separate things. But I do think those couple of things that I mentioned, like we should look into those, you know, risk contracts. Because if they are being used -- and, you know, so I think we need to look at a few things. And it may be that we really do need to put something about carbon in there, even if it isn't elaborated on, and we need to put something about the tradable renewable energy credits in there, so we don't eliminate that from being a part of it. So I would imagine, again, the technical folks will know better, but we may not

want to just leave that out because those things are coming around the corner.

COMMISSIONER TEW: I understand that we will have some discussion about some of those type proposals later today. I know that some of the commenters have included those kind of proposals in their comments, so I think we will have a discussion of those later on. I appreciate that.

CHAIRMAN EDGAR: That is my expectation. Okay. I'm going to go this way just because that way I can keep track.

Mr. Hunter.

MR. HUNTER: Ms. Glickman, you have spoken about how having renewables on board will ultimately protect the ratepayers from the volatile cost of fuel and uncertainty in the future. Do you feel then that it would be appropriate to have the option for a fixed energy cost, you know, for what the utilities pay for renewables, which fixes their cost of fuel? For example, be it 6 cents per kilowatt or whatever, and in that case if the cost of, for example, natural gas goes up, that bill stays the same, and if the cost does go down, well, at least the cost doesn't increase. Is that what you're getting at when you are talking about how it would free them from the -- make them independent from the cost of fossil fuels?

MS. GLICKMAN: Well, I was getting at more of the general notion that the renewables aren't subject to, you know,

ballooning escalating natural gas prices. But I imagine, and folks who are more into the economics of this, that any time you have certainty, you know, that's just going to provide some comfort for folks. So I think certainty is important in it, but I was really speaking more generally. You know, solar energy, I mean, you're in a hurricane, everybody's electricity is out. You know, I'm the one that everybody on my street is going to come shower at my house, okay, because I'm going to have hot water. So, you know, it just depends, but I would think certainty is an important part.

CHAIRMAN EDGAR: Mr. Moyle, were you --

MR. MOYLE: I had just a couple of questions. I had asked staff earlier some questions about, you know, goals, I guess is the right word. The legislature used that term recently, and said that the Commission could adopt rules with respect to goals. And I think I heard staff say we have 500 megawatts of renewable presently. Is that your understanding, approximately?

MS. GLICKMAN: Approximately, yes.

MR. MOYLE: Do you know how many megawatts the state has as a total?

MS. GLICKMAN: In their charts, it's less than one percent, so I don't know what it comes to in megawatts, but --

MR. MOYLE: How does that compare with what you have seen in some of the other states in terms of where they are on

renewables as part of the generation mix?

MS. GLICKMAN: Well, it doesn't compare to where other states are at. You know, 23 states and the District of Columbia have goals. As I mentioned, Iowa, whose goal -- it's is a little hard to read, but they met their goal in 1999. You know what, I'm having a hard time reading. They don't have a percentage by their name. But New York is almost there at, like, 18 percent, they have a 25 percent goal. Washington, 15 percent by 2020. I mean, I can give you a whole list. California, 20 percent by 2018. I mean, they have really significant goals. Montana, 15 percent by 2025.

You know, I think it is really hard to compare the states, because different states -- if you have wind energy, you know, it makes it a whole lot different. I mean, Florida Power and Light has a green pricing program called Sunshine Energy, and it effectively is they buy wind energy from a couple states away. You know, when they get a certain amount of people signed up, they put 150 kW of solar up, which is a relative small amount. I'm very supportive of that program, even though it is not ideal and it is maybe not perfect, and it's not developing renewable capacity in our state, but you have got to start somewhere. So, you know, I can, like, say something nice and criticize all at the same time, because it is just kind of where we are here. I mean, we have got to move forward, so --

MR. MOYLE: A related question. And we have had a lot of issues out here and whatnot, and I know that you follow the legislative process and whatnot, but it's your understanding that this rulemaking is to adopt rules to promote the development of renewable energy, correct?

MS. GLICKMAN: As a general goal, yes.

MR. MOYLE: And you would agree with me, would you not, that the place and the way to do that would be to take the ideas that are provided by you on carbon and others that may be appropriate as policymakers and to put it into a rule that people can look to that addresses renewable energy? You would agree with that, wouldn't you?

MS. GLICKMAN: Yes, absolutely.

MR. MOYLE: One of the issues, and I don't want to get into it, but it's a separate rule versus amending an existing rule. And, you know, there are a lot of issues that relate to renewable energy as you have developed. If we needed additional information on this risk mitigation that you talked about, would your group be able to provide that?

MS. GLICKMAN: Yes, absolutely. And probably put you to the California Energy Commission that developed this report. I think that report is significant. I mean, to look at 21, you know, areas that are looking at this, so if your staff hasn't seen that, I think it would be worth looking at in terms of contract failure.

MR. MOYLE: Thank you. I have nothing further.

CHAIRMAN EDGAR: Thank you.

Mr. Jacobs, welcome. And if you would start with an appearance for the court reporter.

MR. JACOBS: I'm sorry. My name is Leon Jacobs of the firm of Williams and Jacobs. I was here just to kind of buttress Ms. Glickman's, but I wanted to respond to, I think, a general inquiry that I hear from you of how to -- some input about how to proceed with your rulemaking effort. And that comment would be, I think, you are beginning that effort in a wise way and that is to take a wise and strategic approach. However, I would suggest to you that it is a beginning, and I would echo Ms. Glickman's comments that you are at the beginning of an important journey. That journey will require you to embrace a lot in a varied scope of input.

The California Commission, I think, is an excellent reference point. Before that Commission actually did their report, they had come out with an analysis of what the impact to the state was of their heavy reliance on gas. And what I'm hearing a lot of the resource planning issues that you are facing in dealing with this approach to solving this problem is to look at, okay, we have a diversity problem in that we have heavy reliance on gas. We don't want to harm consumers additionally by going to renewables. And I suggest to you that is the proper perspective.

However, what you should find as you move along this continuum is that this should be one of the tools that you look to to address that heavy reliance, not a cost. And what we think you will find is that you have an incredible opportunity, because Florida has not utilized alternative sources of energy in anywhere near their potential. And so you stand at an important threshold that I think Senator Bennett outlined for you, and that is to take a strategic review of this wholesale area and using your expertise and the expertise of your staff draw a map for the legislature and for the state about how to proceed effectively down this path.

And I think you have tools available to you. Yes, there are limitations to what raw renewable potential there is today. You can set a path that would incent more providers to come into this. As a classic example, what we have assumed in your approach is that the coal plant is going to insulate the market from volatility. I would suggest to you that it will insulate you from the volatility of gas, but you want to do a lot more careful research about whether or not it insulates you from total volatility in the energy markets.

What I would hope would happen is that over time you will begin to drive the conduct of this market by the presence of renewables and DSM and conservation and efficiency so that what you will begin to see is that those market presences, the volatility in coal that we are seeing now, the volatility in

capital costs for coal plants, we will begin to see them respond to what you are doing in these kinds of areas, rather than being the tail that's wagging the dog. And I suggest to you that if you want -- that will be our very most specific input to you is don't waste this moment in time, because I think it will be critical to the future of the state, it will be critical to the consumers of the state. They don't have anybody else with whom they share the risk with.

As I am hearing the discussion today, ultimately they are going to pay the avoided cost, okay, however that cost is calculated. And so the only ox that I'm hearing today that may get gored is theirs. So I suggest to you that we are at a beginning point. We are at an early point. There are not real simple solutions to the task you have before you today. They gave you a tough job, but I think it's manageable. I think you have some good leads that have been given to you by other areas in other states and I would highly encourage those to you.

CHAIRMAN EDGAR: Thank you, Mr. Jacobs. Any other comments? Okay.

We're going to go on lunch break. It is approximately 12:35. We'll come back at 2:00. When we do, we will take questions on Ms. Harlow's presentation. 2:00. And then after the questions, Mr. Wright, we'll begin with you.

(Lunch recess.)

(Transcript continues in sequence with Volume 2.)

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

WE, JANE FAUROT, RPR, and LINDA BOLES, CRR, RPR, Official Commission Reporters, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that we stenographically reported the said proceedings; that the same has been transcribed under our direct supervision; and that this transcript constitutes a true transcription of our notes of said proceedings.

WE FURTHER CERTIFY that we are not a relative, employee, attorney or counsel of any of the parties, nor 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.

DATED THIS 14th DAY OF NOVEMBER, 2006.

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