BEFORE THE 1 FLORIDA PUBLIC SERVICE COMMISSION 2 DOCKET NO. 070674-EI 3 In the Matter of: 4 PROPOSED AMENDMENT OF RULE 25-6.065, F.A.C., INTERCONNECTION AND NET METERING 5 OF CUSTOMER-OWNED RENEWABLE GENERATION. 6 7 8 9 ELECTRONIC VERSIONS OF THIS TRANSCRIPT ARE A CONVENIENCE COPY ONLY AND ARE NOT 10 THE OFFICIAL TRANSCRIPT OF THE HEARING, THE .PDF VERSION INCLUDES PREFILED TESTIMONY. 11 PROCEEDINGS: AGENDA CONFERENCE 12 ITEM NO. 3 13 BEFORE: CHAIRMAN LISA POLAK EDGAR COMMISSIONER MATTHEW M. CARTER, II 14 COMMISSIONER KATRINA J. McMURRIAN COMMISSIONER NANCY ARGENZIANO 15 COMMISSIONER NATHAN A. SKOP 16 Tuesday, December 18, 2007 DATE: 17 TIME: Commenced at 9:54 a.m. 18 Concluded at 2:59 p.m. 19 PLACE: Betty Easley Conference Center Room 148 20 4075 Esplanade Way Tallahassee, Florida 21 REPORTED BY: LINDA BOLES, RPR, CRR 22 Official FPSC Reporter (850) 413-6734 23 24

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DOCUMENT NUMBER - DATE

FLORIDA PUBLIC SERVICE COMMISSION 6 DEC 28 5

1	PARTICIPATING:
2	DEL BOTTCHER, representing Soil and Water Engineering
3	Technology, Inc.
4	ANDREW WALMSLEY, representing Florida Farm Bureau.
5	JAY LEVENSTEIN, representing DACS.
6	JASON KEYES, representing Interstate Renewable Energ
7	Council.
8	MICHAEL CODDINGTON, representing National Renewable
9	Energy Lab.
10	GORDON HANSEN, appearing as a citizen of the State o
11	Florida.
12	SUSAN CLARK, representing the IOUs.
13	LEON JACOBS, representing the Southern Alliance for
14	Clean Energy and the Natural Resources Defense Council.
15	BOB KRASOWSKI, appearing as a citizen of the State o
16	Florida.
17	BILL TOTH, representing All Source Energy.
18	BILL GALLAGHER, representing the Florida Solar Energ
19	Industries Association.
20	MICHAEL COOKE, GENERAL COUNSEL; ROSANNE GERVASI,
21	ESQUIRE; CAYCE HINTON; MARK FUTRELL; KAREN WEBB; BOB TRAPP and
22	CRAIG HEWITT; representing the Florida Public Service
23	Commission Staff.
24	

PROCEEDINGS

CHAIRMAN EDGAR: And we will begin our discussions with Item 3, and I'll look to our staff.

MR. FUTRELL: Good morning, Commissioners. Item 3 is staff's recommendation --

CHAIRMAN EDGAR: Okay. Hold on, Mark, because I can't hear you. Chris, can you bump his mike up? Okay. Let's try again. Thank you.

MR. FUTRELL: Okay. Good morning, Commissioners.

Item 3 is staff's recommendation to propose amendments to Rule 25-6.065, Florida Administrative Code. These amendments would significantly expand the Commission's existing rule to further encourage the development of renewable generation in Florida.

The focus of these rule amendments is on customer-owned renewable generation designed to offset electricity purchases.

These systems effectively act as a conservation measure.

The rule amendments were developed with extensive stakeholder participation as a number of informational and rule development workshops have been held this year. The rule amendments will provide greater transparency to customers of the requirements for interconnecting renewable systems with the electric grid. The interconnection process will be expedited as the requirements of both the utility and the customer are made explicit in the rule.

The amendments will also enhance the economic value

of customer-owned renewable generation systems. For instance, various fees would be waived for owners of small systems.

Also, net metering would be required whereby excess generation would be carried forward to the next billing period and used to offset consumption, thereby reducing the customer's bill.

In crafting these rule amendments, staff has recognized the need to balance the interests of encouraging renewable generation with the need to protect ratepayers and the overall reliability of the electric grid.

Now before I end my comments, one of the issues that have come up since the filing of the recommendation is the issue of standby rates and the provisions that were included in the rule amendments. Staff has, in response to comments we've received has drafted some revised language that we've provided to you, and we will discuss that, we will be available to discuss that with you when we come to that section of the rule. Also, we're aware that there's a number of speakers who have, would like to discuss the rule. And I believe they are here, and we have provided you a list of those names.

CHAIRMAN EDGAR: Thank you. I do have a list of names that I understand are people who have asked for the opportunity to speak. If I -- if you're not on my list and you would like to give comments, we certainly will give that opportunity as well. My thinking is that just in order for sort of an orderly discussion I'm going to call upon you down

the list that I have and then we'll see if there's anybody else. Commissioners, of course, always the opportunity to ask questions and have discussion, although I am thinking that also it may be helpful to hear from all of the comments and then we can have discussion and talk to our staff. So we'll try, try it that way.

So the first person that is on the list that I've been given that has asked for the opportunity to participate or has more appropriately, I guess I should say, has shared with us that they would like the opportunity to participate today is Del Bottcher. Please come forward and we'll make sure that there is -- and Mark will help you.

Thank you. Mr. Bottcher, thank you. Chris will make sure that your mike is live. Have a seat, and we look forward to hearing your comments.

MR. BOTTCHER: Well, thank you very much for the opportunity to come and further discuss this. I was here at one of the workshops and presented a couple of issues, and really commend the Commission for taking this action because of the need of getting net metering as an incentive to get additional renewable energy into the state. But as I've noted to staff, I think a couple of points that are in the rule is going to highly limit its effectiveness as compared to what it could be if these two restrictions were removed. One of them, I'm not sure how that can be handled, and that's the, the fact

that it appears in the rule that it's only going to apply to IOUs, the investor-owned utilities, where most of North Florida operate under, get their electricity through cooperatives. And if the rule doesn't carry through to cooperatives, it's going to limit its effectiveness. So I think that's one issue that needs to be addressed, but how that authority can be handled is beyond what I want to discuss today.

Really it's the second point that I want to focus on, and that's the aspect of conjunctive billing as being a limitation of using multiple meters for doing the net metering on a single property. This is going to have a great impact on the ability to encourage, particularly in agricultural operations which are more diverse under physical properties that have multiple meters to be able to participate in net metering. It's actually going to prevent probably about 90 percent of those considering renewable energy in agriculture from considering it. And as I, hopefully I can point out that I'm able to articulate is that there's really no effect of using multiple meters as compared to going to one meter and requiring it.

I'm going to have difficulty here because it's kind of hard to bring this -- because I thought I had made this point before but obviously it got missed, is when you set up a facility, in the way the rule is stated it can only come through one meter. So if you're doing generation and it's

putting out the electricity through this meter, it can net meter. But many facilities, most of their energy consumption is going to be through other meters. And in order to take advantage of that, the operation is going to have the responsibility to internally connect the power to their operation at a high cost, where in reality that entire expense can be eliminated by a simple accounting procedure of just allowing accounting for multiple meters. And the staff recommendation did not allow this because they referred to the conjunctive billing rule which actually says you can only have one meter.

Now I think this is the perfect place for an exemption for that billing procedure, and actually there may be some need at some point to go back and relook at why that rule is still in existence when it can really be handled through an accounting procedure now where I think that bill actually came about from old paper billing, period. That simple accounting procedures can alleviate all the concerns that created that rule. But I did provide some language, suggested language for including the ability to use multiple meters for single customers that are on the, on the same property, that there is some limitation that they can't just go and bring any meter in. It's got to be meters associated with that customer on the same property that is contiguous to the generation facility, and that would really bring all of agriculture into play.

And to try to emphasize the point is if you really visualize, you have the power generation system sitting on one part of the property and you have the bulk of power consumption or use on another part of the property, what's required now in order to get net metering is to go in and do a connection between the two facilities in order to get it under one meter. And that's a cost that is absolutely unnecessary and it would simply be totally eliminated by allowing that to be done in an accounting method that the two meters are read. There's -- the language is set up hopefully to eliminate the concern that the base billing costs associated with individual meters still needs to be accounted for. We're not trying to eliminate that. So we really respectfully request that this be added to the rule so that agriculture can really participate in this much needed net metering program.

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CHAIRMAN EDGAR: Thank you, Mr. Bottcher. And thank you for bringing some suggested language too, because I know you're aware and that hopefully everyone is aware that that is where we are in the process, and it is very, very helpful when there are changes that, that you or others are interested in to have suggested language. That just helps our process so much. So thank you for that.

Commissioners, as I said, I think I'd like to kind of go through the list and then we can have some discussion, and we'll certainly look to our staff to make comments as well.

Mr. Bottcher, thank you.

Andrew Walmsley.

MR. WALMSLEY: Good morning, Commissioners. I'm going to be very brief. I just wanted to reiterate the point that Del brought up. My name is Andrew Walmsley with the Florida Farm Bureau Federation. We represent roughly 140,000 member families throughout the state, and it is the largest general ag organization. And like I said, I just wanted to support Del's comments that, that agriculture is very interested and very excited about having the opportunity to participate in renewable energy production. And decisions such as these, this rulemaking process will really determine whether we have the opportunity to make the investment to be a real player in this arena. And we'd just, we'd like you to take under consideration Del's comments. Thank you.

CHAIRMAN EDGAR: Thank you. Thank you. And I appreciate personally your support of comments as well and always constructive suggestions. Because I know over the past year or so we've heard from many representatives of the agriculture industry and many other industries as well about an interest in some changes to further the net metering possibilities, and that's part of what has brought us here today or to this point in our process.

Jay Levenstein. Good morning.

MR. LEVENSTEIN: Good morning, Chairman,

Commissioners. I will too be very brief, possibly even briefer than my colleagues. There's a reason we put Del up first, because he could best articulate the concerns we have.

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But first, you know, obviously, and this is a new venue for us, I've mentioned before, as far as agriculture and the work that's being done here in the PSC. And the Commission and staff is to be commended on the great work that's being done on both the net metering and interconnection issues, as well as RPS and other issues that we're following very closely.

This one in particular, as Del had articulated and Andrew suggested, is very important to agriculture. You know, Andrew mentioned this: The agriculture community is very interested in participating, and not just on the electricity generation side but, as you all know, and not your issue, but biofuels production, and in all fronts interested in producing renewable energy and renewable fuels for the state. one little issue we think that we need to make a little minor change to help them get through that to try to level the playing field and have them take full advantage of the investment that they're going to need to take on their farms because it's not a small one, as you can imagine. somebody to go in and put an anaerobic or methane digester or some other cogeneration facility and use our resources to produce that energy, it makes sense that we do whatever we can that's appropriate and reasonable to provide the ability for

them to do that in a fair, in a fair manner. And you've heard from Del the nature of the agricultural operations. Many of them in the state use multiple meters. And if you limit them to being able to offset the power that they're using at the same location where they're generating, they just don't have the advantage to take full opportunity of that, and we need to see if there's some way that we can work on crediting that production of energy to the other meters that they're, where they're consuming power. So with that -- and I'm here on behalf of Commissioner Bronson. This is an issue that's very much on his radar screen as far as, as far as seeing if we can't find some solutions to help the industry. So thank you very much.

CHAIRMAN EDGAR: Thank you, Jay. And I'm reminded, being at the Farm to Fuel Summit earlier this year, and what I heard from the audience and from the Commissioner and from Jay, I think, as well is we, we, the speakers, I mean we the speakers were saying, please, please do some additional work on net metering. So, again, I'm just so happy that we've had so much participation and discussion to get us to this point today.

Jason Keyes.

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MR. KEYES: Hi. Jason Keyes from the Interstate Renewable Energy Council. I was very happy to hear that my first issue that I was going to talk the most about was the

standby rates. I'm not sure if Mr. Hinton has shared -- we provided a study by an independent consultant, a rate analyst, of what the effects of the FPL standby rates would be. And most of the, most of the energy -- the value of the energy generated by a solar system would be eaten up by the standby charges in those cases where a Tier 3 applicant had a system that was going to be producing more than 20 percent of the power, 20 percent of the load of that customer. So that would force customers to keep their systems below that 20 percent threshold. So I strongly urge you to adopt that.

There are three other issues. One is on the tiers in Section (4)(b). We had requested before that the tiers be changed. Right now they're set at Tier 1 goes up to 10 kilowatts, Tier 2 goes to 100 kilowatts. And for a couple of reasons it would be very helpful to have those tiers moved up. Tier 1 is not subject to insurance, and insurance will be a pretty effective barrier for a small system. So we would propose that Tier 1 go up to 25 kW. That covers pretty much all residential systems so you don't have the problem of people who want to put in a good-sized solar system unable to put it in because their insurance company knows nothing about it. And we talked about that quite a bit in our last meeting, so I won't go into that in great detail.

And the second one is the Tier 2. Tier 2 goes right now up to 100 kW. We propose that it go up to 250 kW. For

systems below about 250 kW there, there aren't anywhere near as many issues. It's unlikely that there will be adverse effects on the utility grid. And so if they meet the, the standards that have been laid out, there shouldn't be need for further review past that. And so that can add a level of certainty for those systems from 100 kW up to 250 kW, that when somebody comes in and they know their system meets the standards, then they know that they're going to get approved. If they have to go through a study, they don't know how much that study is going to cost or when it will be completed, and that risk will convince some people to simply not propose those larger systems. They'll just keep their systems under 100 kW. So I would encourage you to go to 250 kW.

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And for one other reason too, which gets to my third point, which is insurance. Right now there's an insurance requirement for Tier 2 and then a higher insurance requirement for Tier 3. I would encourage you not to have an insurance requirement for Tier 2 and at the same time be moving the Tier 2 level up to 250 kW. This was a compromise that we achieved in New Mexico that worked out pretty well. And what we did was we -- again, with a gentleman who was here before actually, Mike Sheehan, who is a former T&D manager at a major utility and worked on the 15, the IEEE 1547 committee, and he pointed out that there's almost no risk to the utility grid of having a system below 250 kW. That when you get up to 250 kW

there might possibly be a way that you could damage a transformer and that would be a major expense. But less than 250 kW you might hurt a fuse. It might be, you know, a \$5,000 effect. So, so there isn't really a need for insurance up to 250 kW, and we would encourage you to make that change.

And the final change is in Section (4)(d). It very helpfully lays out that Tiers 1 and 2, if they meet the national standards, shall be approved. And for Tier 3s it says that additional study may be conducted, but it's not clear what that additional study would be. We've, in our comments we suggested that you adopt a series of screens that we have, that IREC has in its model rules. And we got back the comment from staff that screens seemed like a good idea, but that's an awful lot to go into now. Let's look at this in a few years and it certainly would be good to look at it eventually.

But a way to ease into it that I would suggest is to create a presumption in Tier 3 that if you meet the federal standards -- so under the Federal Energy Regulatory

Commission's small generator interconnection protocol there are a series of 13 screens, and if, if an applicant can show that they meet all of those screens, then there's a presumption that they have a safe, they're proposing a safe interconnection and that further study shouldn't be required. But the utility can give a written explanation of why meeting those screens isn't enough and they do feel it's necessary to, to have further

study. And I don't have a connection here to, to pass you language, but I'd be happy to pass language to that effect to you by noon.

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CHAIRMAN EDGAR: Thank you. And you, I think you said three points but I think I heard four, so I wanted to make sure.

That discussion about the standby rates language and mentioning the MRW study, a request or discussion on your part about changing the level for the Tier 2 threshold, changing the insurance requirement for Tier 2 and then addressing the language with the screen, screening levels or screening thresholds, does that kind of --

MR. KEYES: Right. Correct.

CHAIRMAN EDGAR: All right. Thank you.

MR. KEYES: Those four. I was saying the third one, having dropped the standby rates.

CHAIRMAN EDGAR: I'll roll that into the first one.

All right. Thank you.

Michael Coddington.

MR. CODDINGTON: Good morning, Commissioners.

CHAIRMAN EDGAR: Good morning.

MR. CODDINGTON: I'm Michael Coddington with the National Renewable Energy Laboratory, a Department of Energy lab, and I just had a few comments this morning. I'll try to make it brief.

The first item is regarding Item (6)(b), the manual 1 disconnect switch. And there in the language it states that in some size systems, larger size systems a utility may require 3 this utility accessible manual disconnect switch. And that certainly may be appropriate for some larger systems, but the 5 language states that it should be adjacent to the meter socket. 6 And I would just point out that there are many instances, 7 college campuses would be a good example, where you've got, excuse me, the electric meter in a location that may be far removed from the solar system at a location. So if some

language could be added to that that, with agreement with the

utility if it's not practical that a disconnect switch be

located at another location besides adjacent to the meter.

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Now the second point would be under Item (6)(c)(3) under adverse electrical effects, and this is stating that the utility would have the right to disconnect the distributed generation system from the grid for adverse electrical effects. And I would just state that some additional language be added, and I'd be happy to give recommendations, that would hold the utility responsible to document those adverse effects and to work with the customer to resolve any issues, and if any of those issues cannot be resolved, that that be reported to the Commission. the systems are, you know, modern technology. There's no reason that if there are any kind of problems it couldn't be

resolved quickly.

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Also I would like to make a comment about

Item (8)(h), and that has to do on, on the Attachment A on

Line 12 it talks about the generation capacity of 20 percent or

more of the customer's total electric load. And the word

"load" is not descriptive enough. I would recommend if that's

either kilowatts in terms of demand or kilowatt hours in terms

of total energy, but that should be defined clearly. I think

"load" could be interpreted a number of ways and cause some

issues.

And I guess lastly I would second the recommendation certainly for Tier 1 that that be considered to, to bring that up to a higher level, perhaps 25 kW. That seems to be for a number of reasons a logical break point for that, for Tier 1. Thank you.

CHAIRMAN EDGAR: Thank you.

Gordon Hansen.

MR. HANSEN: Gordon Hansen, homeowner, Chuluota,

Florida. My wife Jean will take over if I choke. Okay?

Thank you for this opportunity to speak. It should take about five minutes.

CHAIRMAN EDGAR: Okay.

MR. HANSEN: My compliments on your net metering document. I'm here to present a case for an across-the-board retail rate for the Tier 1 group. A handout on the subject has

been, has been given to the Commissioners. I will use a bullet version for my talk. It should speed things up.

In reviewing, since we attended our first meeting,
Tier 1 has gone from 25 kW to 10 kW, and from almost retail
rate to a COG-1 rate for excess. We hope we can make a better
showing today. I believe the Tier 1 group must get
across-the-board retail rate if you are going to see any
significant participation. Here's why.

Number one, solar completely failed under the old rule because of COG-1. Number two, lowering maximum level to 10 kW makes Tier 1 strictly residential. Number three, having no business write-off is a big disadvantage. And number four, there is a disincentive to conserve over the offset amount.

At this point I would refer to the Commission's docket page 39. Here, provided here FPL has provided a five-year revenue impact projection. I used those values using their 4 million customers to calculate and show that there is no burden on non-solar customers whatsoever, and here's why.

Item 5, 6 and 7 of my handout show cost progression under current rules, proposed rules and requested across-the-board retail rate rules. The assumption is that lower revenues are a very good indicator or, excuse me, lost revenues are a very good indicator of cost to non-solar customers. All other costs are going to take place regardless of what happens to Tier 1 excess. Therefore, current losses,

number five, under current rules at all COG-1 rate is less than one-tenth of a penny per year for non-solar customers. These calculations are in the handout. Projected loss at the five-year point under proposed rules is 15 cents per year for non-solar customers.

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Number seven, projected loss at the five-year point on the requested across-the-board retail rules is 19 cents per year per non-solar customer. That is 4 cents difference per year than what is already proposed. It amounts to one-third of a penny per month.

Many customers, number eight, many customers donate \$9.75 per month to the Sunshine Energy program. Less than a penny is insignificant. I would suggest that the utilities stop using this tariff scenario. I believe it is unfair to implement across-the-board retail rates for Tier 1.

I respectfully request changes indicated on my handout. For the record, I would like to read the sentence that proposes the change. "At the end of each calendar year, the investor-owned utility shall pay the customer for any unused credits at an average annual rate based on the investor-owned utility's normal retail rate for Tier 1 and pay Tier 2 and 3 at COG-1, as available energy tariff." And at a minimum I suggest at least a five-year trial period. Thank you.

CHAIRMAN EDGAR: Thank you, Mr. Hansen.

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MS. CLARK: Thank you, Madam Chairman. I'm Susan Clark. I'm with the law firm of Radey, Thomas, Yon & Clark, and I'm here on behalf of Florida Power & Light, Gulf Power Company, Progress Energy and Tampa Electric Company.

First off, I want to say the IOUs appreciate the process that has been followed in developing this rule. allowed the IOUs and other parties the opportunity for input into this draft rule and we appreciate that. The IOUs continue to support policies that will encourage the development of renewable generation in a manner that is cost-effective to our customers. Throughout this process the IOUs have had the opportunity to discuss and highlight concerns regarding various provisions of the rule which will result in subsidies flowing from the general body of customers to net metered customers. We will not reiterate our comments regarding that at this time. We understand but continue to disagree with staff's view that the subsidies provided are justified in order to promote the customer-owned generation targeted by this rule. We'll also not reiterate our comments about the insurance for Tier 1. We continue to believe that Tier 1 generators should be required to carry general liability insurance. And as we've heard in these proceedings and workshops, the insurance is available, it's affordable and it's reasonable.

There are some areas we would like to address

specifically and we have suggested language. I'm going to ask Mr. Stiles to pass those out to you now. I think at least one of those will be obviated by a suggested change of your staff with respect to the standby rates. And I guess what I'll do is I'll leave that, comments on that until we -- maybe you have a conversation about what the staff is proposing.

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The first, the first amendment we'd like to offer is with respect to Subsection (5)(b). The staff has not recommended the inclusion of a sentence which would allow a utility to inspect the customer's equipment and protective apparatus at reasonable times, upon reasonable notice and at the expense of the utility. The staff has instead suggested language that requires the customer to notify the utility by submitting a new application of any modifications to the customer-owned generation that results in the increase in the gross power rating. That language is inappropriate. It's inadequate to address the utility's concern. Without the opportunity to inspect customer equipment there is no means of verifying that the equipment continues to be in compliance with the requirements of the rule and poses no threat of damage to the utility facilities or other customers or that no modifications have been made that would require changes to the interconnection agreement. We would simply suggest that you add the language that appears on the first page of what was handed out that says those inspections can take place upon

reasonable notice, at reasonable times and at the expense of the utility.

Our next suggested change is with respect to the manual disconnect switch. In the proposed rule the manual disconnect switch must be installed at customer expense only for Tier 2 and Tier 3, and the utility cannot require Tier 1 customers to have a manual disconnect switch unless the utility installs it at its own expense. The IOUs believe that a manual disconnect switch is key as it enables the utility to disconnect the generation for emergency and maintenance purposes, hazardous conditions and adverse electrical effects without affecting that customer's service or service to other customers. Without a manual disconnect switch the utility must pull the customer's meter and discontinue service in such situations, which the utility would like to avoid.

If you look on Page 16 of your staff recommendation, they have noted that a visible disconnect switch can be an important safety measure in Florida, given the fact that Florida is subject to large thunderstorms and hurricanes, and pulling a meter is not an acceptable alternative. In recognition of Florida's unique weather-related exposures the IOUs submit that all customers should be required to have a manual disconnect switch installed at their expense. I would also point out that your current rule does, which relates to photovoltaics, does require a manual disconnect switch.

The estimated cost for installing a switch is about \$1,200 per switch. And as the number of customers choosing net metering increases, the subsidization by the general body of ratepayers could be significant. The alternative of pulling a meter is not satisfactory because it means the customer will have no electric service. We therefore recommend the amendment we've given to you which would eliminate the exemption for the Tier 1 customers.

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The next area we have a suggested change on is with respect to crediting and payment cycles for excess generation. And the amendment on the third page -- and, Madam Chairman, I apologize that these pages aren't numbered at the bottom. I realize that's a gross breach of procedure here. The proposed rule would require energy delivered to the grid during any billing cycle to be credited against the customer's consumption from the next month's billing cycle. Then any unused energy credits would accumulate and offset a customer's consumption in subsequent months for not more than the 12 months. At the end of the calendar year the utility would pay the customer for any remaining energy credits. The IOUs anticipate that they will incur substantial costs to automate their billing processes in order to comply with the proposed rule amendments and believe that all customers will benefit if the rule allowed the utility to reconcile and pay for any excess generation on a monthly basis rather than an annual basis. A monthly reconciliation

would reduce the complexity of the billing process so it's easier for customers to understand the billing and the application regarding the excess generation.

In addition, monthly reconciliation would allow the utility to apply excess generation to the customer's current billing period and issue an immediate credit. This would reduce the complexity of the billing system changes needed to maintain and adjust balances and for the credit and for electric billing. To accomplish that change it would require the deletion of (8)(f).

Madam Chairman, I'm going to skip our concerns on the standby. We've had an opportunity to speak briefly with staff and we may have resolved that, so I'm going to wait to hear staff's proposal on that.

The last area that we are suggesting change is with respect to Subsection (9) having to do with renewable energy credits.

The first thing I'd like to state is I think that addressing renewable energy credits is really not germane to this rule. This rule is about net metering and interconnection, not about renewable energy credits.

We still believe that this paragraph should be deleted in its entirety and that the ownership of RECs should be part of a comprehensive policy on promoting renewable generation such as your current workshops on an RPS standard

and process. Under these rules the generators are being subsidized by a waiver of fees and costs and through payments in excess of avoided cost. They are being subsidized by the general body of ratepayers because they are producing energy from a renewable resource. They are receiving these subsidies. Then by leaving the RECs with the customers as well, the other customers are receiving no financial benefit.

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Let me just give you an illustration of this issue with respect to a small customer. We currently really don't know what the value of these renewable energy credits might be. It may be that it's a very small asset and there's no realistic way of obtaining its value because the transaction costs would be -- and I'm speaking of a small residential at this point. There may be an aggregator out there who would be able to economically collect it and sell the RECs, but the likely customer is going to be the very utility and its customers who provided the subsidies through the waiver of fees and through the payments in excess of avoided cost. What this will mean is the non-generating customers would pay twice, once in the subsidies to the renewable generation generators and then again through the purchase of these RECs. Further, it may be that those RECs will be a higher price to those customers because of the transaction costs in aggregating and getting them back to the utility.

I want to be clear that making these points with

respect to this issue is solely by way of example. And I think we can think of other circumstances where concerns about leaving the ownerships of the RECs could be described. We're not advocating at this point how to treat those RECs. But I think you do need to look at your overall policy regarding RECs when the price paid for the generation being produced is more than avoided cost or there are other subsidies that are flowing to the particular customer. We've had that conversation, I believe, in the workshops and in the net metering. We're suggesting you delete this provision and treat it as an overall policy rather than doing it on a piecemeal basis. There should be an overall policy as to when is it appropriate for those ownership or some part of ownership in those RECs to be claimed by the general body of ratepayers?

Madam Chairman, we may want to respond to some of the comments that have been made by the other folks that preceded me, but I think it would be appropriate for us to wait and respond to those as you see it's appropriate or staff requests us to respond to them.

CHAIRMAN EDGAR: Thank you. And we will again have discussion and certainly have the opportunity to hear from, from speakers and have some of that dialogue.

I have one more person that has indicated that they would like to speak at this time, and that is Leon Jacobs.

MR. JACOBS: Good morning, Commissioners. I thank

you for providing me the opportunity to address you today on these important matters. I also want to echo the sentiment of gratitude for your taking on this docket. And the process that you've undertaken I think has been a very thorough and inclusive process. My comments are fairly general and contextual.

First of all, I think it is appropriate to say that the recommendation that you have before you strikes an important and, I think, appropriate balance that should be taken in this proceeding. That is, how do you go about promoting and incentivizing the development of solar in this state? And it's clear that, that there have been important balancing steps taken to address that and we want to support that.

First of all, I guess I should identify myself. My name is Leon Jacobs. I'm with the firm of Williams & Jacobs, and I'm here today on behalf of the Southern Alliance for Clean Energy and the Natural Resources Defense Council. And both of those organizations are highly supportive of the idea of renewable energy and believe that in this state it's an important commodity and resource that is available to support the energy grid.

There are two areas that I would want to bring to your attention and a third comment that I want to offer. I think an important step has been made with regard to standby

rates and I highly encourage you to, to adopt the provisions that are there. However, I would suggest to you that, that we're probably at the, at the beginning of an evolving process. And it's hard to determine how the actual implementation and practice will work with regard to solar systems. And I would encourage you to take a very precise monitoring role in exactly what happens with these systems because I really think you're going to come to conclude that you can give more flexibility with regard to standby rates in contrast to the statements I think you've heard previously. I think what I've heard at least is certainly on the small systems there's not a lot of sell back on the early stages, it comes later on, and on the larger systems you can begin to isolate down to where you need to have that kind of, that kind of an effect and approach. But I would encourage you to consider more flexibility with regard to standby rates.

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The other area I would, I would point you to is the insurance requirement. I think it's exactly appropriate what you've done with regard to the smaller systems, but I also want to echo the statements that were made earlier. I think on the front end as these systems settle in there's probably some, some merit for concern about what kind of actual impact they're going to have to the grid. But once they get there, once it's set in, it's my understanding there's not a whole lot of change that happens with these. And I stand to be corrected because

I'm not an engineer and I'm not a transmission guy. But I think you -- again, I would encourage you to be very vigilant in observing what actually happens once this market takes off because I think there again is an area where you could do a further balancing to encourage, to encourage development of solar in the state.

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And then my last comment goes to the issue of the RECs. I absolutely believe that your approach here is appropriate. And what you've done here is strike a balance that I don't know that my principals would jump up and down and say that it's the best, but I think it's a way to get this market going. What you said is, okay, we'll pay you a wholesale rate if indeed there is net metering. It strikes me then if you, if you then allow, don't allow the owners of that, of that, of that resource to own those RECs, that they're losing out on the long-term because it will be absolutely, in my view it will be absolutely clear that as, as, as items develop and as, as the issues with regard to carbon trading develop that there will be economic advantages to the, to the expansion of solar energy in this state. And your question then is who, to whom do those economic advantages accrue? And if you lock in these, these providers to that rate and then deny them the opportunity on the RECs, you've essentially said all of the economic benefits accrue to somebody other than them. Now who that is, we, we don't know. But I think it

would probably go mostly to the industry. But I think that would be a fundamentally improper policy statement to make is that all of the economic benefits of the expansion of this market should accrue not to the people who have sat here and sweated out the process of getting it, getting it going. And I think you would want to think real carefully about how you embark on that question.

And then there are other issues out there, but, again, I guess my general statement is that this is, I believe, the beginning of an important work in progress. I think this is an important first step and I congratulate you on taking that step.

CHAIRMAN EDGAR: Thank you, Mr. Jacobs.

And that is the last person that I have. And I was just going to say is there anybody else who would like to take advantage of this particular opportunity to make some comments?

Mr. Krasowski.

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MR. KRASOWSKI: Good morning, Madam Chairman. My name is Bob Krasowski. I'm a 27-year resident of Florida. I'm a customer of an investor-owned utility, and I'm also active with the various efforts to advocate for clean energy and the Florida Alliance for Clean Environment, a small group I belong to.

I'm here today -- first I'd like to say congratulations, Commissioner Carter, and thank you very much,

Commissioner Edgar. I understand we're not allowed to give gifts. I was -- I had some, I had a set of Yucca Mountain dribble glasses that I was -- but I'll forget that.

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CHAIRMAN EDGAR: I appreciate the thought though.

MS. KRASOWSKI: Yeah. I'm sure you do.

Okay. I have a few points I'd like to make. I agree very much with what's been said earlier by the agricultural people and also Mr. Hansen. I've read his other handouts and agreed with his position as far as increasing Tier 1. I think we really have to encourage agriculture to, to burn their methane and to use the resources onsite to generate power to the extent they can. And all down the line, geothermal and the appropriate use in Florida, solar energy, encourage third parties to, to put facilities on big box stores and the like. And I'm noticing here that there's a maximum 2-megawatt in Tier 3. So in my math if we were to get 2,000 2-megawatt operations going, we'd equal 4,000 megawatts, and, of course, they don't operate all the time. But in one of the investor-owned utility's documents they show a need of 6,156 megawatts projecting into the year 2020. But if that, that was created by DSM or renewable, they only identified the need for 5,130. So there's a whole, like, 16 or 18 percent factor of efficiency when it's done either through efficiency or renewable or distributive energy because of transmission loss and stuff.

So what I'm here to advocate for is for us to 1 maximize the use of the, of these, of distributive energy and 2 3 the net metering and what's included in this rule, but also -there's one thing I see that hasn't been worked through, and 4 5 that is as a customer I get my bill and there's a small fraction has been identified of potential increase to my, my 6 7 charge as a ratepayer of an IOU. And but in -- what's under consideration now is to charge me a much larger amount to 8 subsidize the development of nuclear energy. Okay? So I think 9 what we have to do is not experience a tunnel vision in regards 10 11 to the situation we're in, but if we're -- we have to do a comparative analysis of, of, of subsidizing and encouraging and 12 building a rate base that will cause the spread of the solar 13 and these other agricultural opportunities to generate power to 14 displace that nuclear, because the nuclear is billions of 15 16 dollars. So we can't look at this, these options here, net metering independent of -- if there's an opportunity, as in 17 18 Italy they've created 4,000 megawatts of renewable energy, Germany has done it to a great extent. Of course, it's 19 20 identified as being somewhat expensive. I think in Germany, as an example, they pay people three times the rate that they 21 22 charge them for energy just to incentivize the distribution of

So I really think, given the comments of others today, that we should go back, have another workshop to go over

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all of these suggestions and come back to you, because it's a little premature now what's being presented. And I would like to see a thorough analysis of the value to me as a ratepayer of Mr. Hansen's strategy as opposed to what will happen if we do not create this energy through these, the use of these options, understanding the enormous costs. We have no clue of the exact amount that some, some of the nuclear option is right now, and we're investigating that, right, we're all looking at that and trying to figure out the appropriate way to deal with it.

So, you know, rather than repeat myself, I'll just end my comments there, and hope maybe later as the discussion goes on, if something comes up, I might be able to say something then. But thank you very much. Appreciate it.

CHAIRMAN EDGAR: Thank you, Mr. Krasowski. And is there anybody else who has not spoken that would like to go ahead and give us kind of an overview of their comments? No? Okay.

Then I think what I'd like to do, since we've been going since 9:00, and I could use a stretch, is let's take about 15 minutes, give our staff the time too to go over some of the comments that we've had, and we will come back at five, ten -- let's say ten after. Thank you.

(Recess taken.)

Okay. We are back on the record. Thank you all for staying with us while we had a little bit of a stretch and to

clear the cobwebs. And I've asked our staff to go over the rule language that is before us, and they can go section by section. And then as there are questions, Commissioners, I also know that they are prepared to address the comments that have been made and requests for discussion about potential changes.

And before I ask them to do that though, I feel like I have to state the obvious, which is that to get to this point, of course, you know, the way this process works, we come to agenda and we hear about -- and I encourage that, but the suggested change here or tweak there or the desire to go a little further in a couple of different places, and that, of course, then doesn't give -- or perhaps gives an inaccurate impression a little bit because what we don't talk about are all of the things that there has been consensus on and that there has been strong discussion and agreement that got us to this point. So realizing that the staff has worked very hard and that we've had a full Commission workshop and a number of staff workshops and that there was a lot of give and take to get the language as it is before us. And, Mark, if you could kick us off.

MR. FUTRELL: Thank you, Chairman. What we'd like to do is for the staff that's worked on these sections of the rule, Mr. Hinton and Ms. Webb, to go through this and describe what's in the rule language and what's behind that. And also

if you would prefer, we can address the comments that have been made this morning as we go through those sections.

CHAIRMAN EDGAR: Yes, please.

MR. FUTRELL: And that would be an opportunity for the parties, if they have questions and comments at that point. So I'll ask Mr. Hinton to kick off with Section (1) on the application and scope of the rule.

MR. HINTON: Thank you. This is Cayce Hinton,

Commission staff. I'll be addressing Subsections (1) through

(7), and then I'll hand off to Karen Webb, who will address

Subsections (8) through (11) this morning.

Beginning with Subsection (1), and I'll just be, I'll go through staff's recommendation, touch on the issues that were contentious or controversial through the process. Not all of them have been addressed here this morning. And as I go, I'll try to address the comments that were made this morning as well.

Subsection (1), application and scope, we've adopted language very similar to that stated by the Legislature in 366.92 when they proclaimed their intent to encourage renewable energy. This rule does apply to investor-owned utilities; however, we'd note that in Subsection (10) all electric utilities in the state would be required to provide information reports on interconnection net metering activities.

Subsection (2) is the definitions section. There

were a couple of issues that were of interest during the process regarding the definitions.

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First, under the definition of customer-owned renewable generation. There was some initial comment that this phrase should actually be customer-sited renewable generation as opposed to customer-owned. The purpose behind that was to allow for third party ownership of, of PV systems, for example, which seems to be a business model that has, that has been effective around the nation. However, without going -- you know, from a very technical perspective there is, there is case law that determines that the sale of electric, the retail sale of electricity to a single member of the public will make you an electric utility subject to Commission jurisdiction, which, which causes a problem for direct third party ownership systems if it involves the retail sale of electricity. Staff has addressed it in the language by stating that customer-owned does not preclude contracting with third parties for, for a lease of equipment, provided that it does not involve the retail sale of electricity from that third party to the customer. And, again, staff's intent was to encourage renewable generation within the confines of our current law, which, which we feel that that effectively addresses.

The next definition, gross power rating, which that is basically what we use to determine the capacity of the system so that we can determine where it falls within the

tiers. One issue that came up during that process is initially we're talking about using, utilizing the AC nameplate capacity of the system to identify its size for placement within the tiers. Of course, it came to, came to light that PV systems don't have AC nameplate capacity because they generate in DC, and that DC is then passed through an inverter which converts it to AC. However, we couldn't use the AC nameplate of the inverter because it's very common to oversize the inverter, and that would lead to -- it wouldn't correctly identify the capacity of the generating system. So Jason Keyes down here to my right with IREC as well as Advanced Green Technologies suggested a calculation method where we take the DC nameplate, multiply it by .85 to account for energy lost during the conversion process and use that for the gross power rating.

Moving forward, renewable energy, we've adopted the language found in Section 377.803, Florida Statutes, for renewable energy. One, one stakeholder in the process had mentioned at one point that we should not include municipal solid waste within our definition because it is, as they described it, not a green technology, not a renewable technology. However, the Commission is limited by our empowering statutes. And although biomass is not defined within 377.803, staff would note that 366.91 does define biomass, and municipal solid waste is included within that definition. So we have basically adopted that which the

Legislature has proffered to this point.

If you don't have any questions on Subsections (1) and (2), I'll proceed to (3). Okay.

CHAIRMAN EDGAR: Just a second, Cayce.

MR. HINTON: Okay.

CHAIRMAN EDGAR: Commissioner Skop, did you have a question?

COMMISSIONER SKOP: I did, Madam Chair. I think my questions though that I had or the concerns that I had were in the order of the front part of the staff recommendation, not necessarily pursuant to the rule itself, which was kind of hard to read. So if it's appropriate, I would just rather reserve mine until the end and then just ask.

CHAIRMAN EDGAR: Okay. Absolutely. We will come back to you.

Cayce.

MR. HINTON: Okay. Subsection (3) is the requirement that utilities within 30 days of the effective date of this rule file for Commission approval a standard interconnection agreement for the interconnection of customer-owned renewable generation up to 2 megawatts.

A number of issues came up during this process. One was some of the stakeholders requested that the Commission establish a standard interconnection agreement that would be implemented by all utilities in the state and that there would

be a couple of different interconnection agreements that we would, we would set out there. One would be a simplified agreement, then another standard interconnection agreement on top of that.

Although staff agrees in principle that, that the standard interconnection agreement should be as uniform as possible, at this point staff would prefer to allow the utilities to have a little bit of flexibility in designing their standard interconnection agreements, just accounting for the lack of experience thus far in interconnection, interconnecting these systems on a wide scale within Florida. We would encourage them to keep the principles of uniformity and simplicity in mind when they file their interconnection agreements for Commission approval, and that they do work together to make sure that they are similar in approach and in style and simplicity.

And Subsection (3) also the, the amendments would adopt nationally recognized codes dealing with, addressing interconnection and safety: IEEE 1547, IEEE 1547.1 and UL 1741. These, as I said, these are nationally recognized codes. Everybody seemed to be in agreement with adopting these codes within the rule language. And, again, it just adds to the expedited nature of the interconnection rules setting these codes out there that systems -- that customers can know that if I'm compliant with these systems, then I will be able to

interconnect with the utility without having to jump through extraordinary hoops to prove that my equipment is sufficient.

Subsection (4), customer qualification and fees.

There are a couple of conditions that are placed upon the customer's system for interconnection. First is the customer-owned renewable generating system can't exceed 90 percent of the utility's service rating. In other words, they can't overbuild the facilities connected to their house. This, this is a good safety measure protecting the reliability of the system, ensuring that we're not overloading the system, but it also guards against somebody whose intent is to be an independent power producer.

As Mark had mentioned earlier, the intent of this rule is to encourage customer-owned renewable generators designed to offset consumption. That's their primary use.

It's more of a conservation measure and we're not looking to encourage independent producers, and this 90 percent threshold would do a lot to, to aid in that endeavor.

The second condition of the customer-owned renewable generation system is it must fall within one of three tiers.

The first tier is 0 to 10 kilowatts, the second tier is greater than 10-kilowatts up to and including 100 kilowatts, and the third tier is over 100 kilowatts up to and including

2 megawatts. This has been an interesting process determining the tiers, and originally staff had proposed a Tier 1 that went

all the way up to 25 kilowatts. And after some discussion about appropriate size in relation to other issues, staff looked at that again and decided to drop the Tier 1 down to 10 kilowatts, which based upon conversations during the workshops that would largely capture the residential market.

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And having done that, we looked to what we could waive as far as requirements for these customers, wanting to remove the burden as much as possible that homeowners would, would experience when trying to build their own generating system and interconnect to the, to the utility. And as part of that, the Tier 1 systems up to 10 kilowatts, again, largely the residential systems, would be exempted from requirements to carry additional liability insurance or liability insurance. They'd also be exempted from any application fees in the process, interconnection costs, no interconnection study costs can be passed on to them. They'd also be exempted from the fees or the expense of installing a manual disconnect switch. And this is, this is actually going to Subsection (6), but Ms. Clark had mentioned that Tier 1, Tier 1 customers are exempt from this requirement altogether. That's not altogether accurate. Staff's recommendation in Subsection (6) would exempt inverter-based Tier 1 systems from the requirement to install a manual disconnect switch unless the IOU wants to pay for the manual disconnect switch.

The reason we've taken that approach, inverter-based

systems have their own protective measures installed. The inverter has protective mechanisms that if the electric grid goes down, the inverter automatically disconnects the PV system from the grid. And for the smaller systems, other states -- for example, I've cited in the recommendation, California at one point used to require PV systems of this size to have a manual disconnect switch. But they found after, after, you know, some experience they found that their linemen never used them and so they've dropped their requirement for these smaller PV systems.

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We have dropped -- in staff's recommended amendments we would drop the requirement for the small PV systems as well or smaller inverter systems. However, we do leave room for the utility, if they do think it's essential for these manual disconnect switches to be installed, that the utility would pick up the expense of installing that manual disconnect switch.

And, you know, part of this -- as Commissioner Jacobs had mentioned when he came up here, he said that we should observe the market and make, you know, and adjust things as we go, and that's largely the approach that we're going to need to take because we don't have extensive experience interconnecting these systems in Florida yet. But, you know, as we do, we'll be better able to assess the market, how things have developed, what we can change in the rule to better accommodate, encourage

the market as it develops. Manual disconnect switch, this is one of those that, you know, perhaps the utilities, given the option to install it at their own expense, after time they may come to the same conclusion that was reached out in California that, you know, look, we really don't need this and so we won't.

CHAIRMAN EDGAR: Commissioner Argenziano.

COMMISSIONER ARGENZIANO: Thank you. To that point in the manual disconnect switch, when you say the companies, it would be their expense, is it then passed on to all the customers?

MR. HINTON: As -- yes. That would -- just like metering costs or anything else, that would be something that, that would be presumably, correct me if I'm wrong, be passed on to ratepayers at the next rate case. Of course, rates don't change as a result of this rule until the next rate case comes along.

COMMISSIONER ARGENZIANO: Thank you.

MR. HINTON: But I kind of got ahead of myself a little bit. Let me get back to Subsection (4). And, of course, there was conversation about tiers and some stakeholders have mentioned this morning they'd like to see the tiers risen a little bit.

Part of why staff chose the 10 kilowatt number is, for one thing, that that is the level that's in the current

rule. So we would be taking those that would interconnect under the small PV rule, we're incorporating them as Tier 1, and then we're waiving a lot of fees and requirements for those systems because we do have experience with those systems now to some extent because we've had rules on the books for a few years in addressing that.

Also it would make this rule consistent with the inverter-based process within FERC Order 2006, which is their order, final rules on interconnection of small generators. They have -- they've got things set up with a 10, an inverter-based process up to 10 kilowatts, and they have a fast track process up to 2 megawatts. Of course, then they have a steady process up to 20. That goes beyond the scope of staff's rule or staff's recommended amendments.

But the 10 kilowatt level, you know, just speaking personally, it's neat. I like neat. We'd, we'd move those systems from the current rule into this rule under Tier 1. And then instead of going all the way up to 2 megawatts, which is a second tier as you would see in the FERC order, we wanted to, staff wanted to account for the lack of experience in Florida installing these larger systems, break that up into two different tiers that we can treat a little differently. And how we've done that is we've exempted -- we've allowed the utilities to file, submit application fees for Tiers 2 and 3 for Commission approval along with their standard

interconnection agreement, and we've allowed them to file for approval an interconnection study charge for Tier 3, which is the largest systems addressed in the rule. Tier 2, while we would allow for an application fee, we would not allow for an interconnection study charge with those systems.

And, again, this is -- there's nothing set in stone that, you know, we went out and, and found that these are the absolute best thresholds for these different tiers. In our judgment this is a good starting point from which to assess the market, see how it develops and make changes down the road. This, this rule, personally I envision this rule as an evolving process. As we, as we see how the market develops and see different ways that we can encourage it to develop, incentives that we can provide or things that we do need to include that would lend a little more clarity: For instance, the key -- the screens that Mr. Keyes had mentioned. The Commission can revisit these rules down the road, similar to how we've revisited the small PV rule and are making changes to it now to expand it. But at this point staff would recommend Tier 1 up to 10 kilowatts.

CHAIRMAN EDGAR: Okay. Let's break in for a few questions.

Commissioner McMurrian.

COMMISSIONER McMURRIAN: Thank you.

Mr. Hinton, what I -- with respect to the tiers, what

I -- one of the points I think I hear you saying is that because of all the Tier 1 benefits, because of all the fees and study charges and the liability insurance and those things that are waived with respect to Tier 1, you all felt that it was an appropriate balance to cut it off at 10 kilowatts because I guess the difference between the 10-kilowatt and the 25-kilowatt tier level would increase the level of subsidies that would be going on; is that correct?

MR. HINTON: Yes. That, the fact that we have experience up to 10 kilowatts because that's contained in the current rule, that would increase the subsidy. And that's, and that's something the Commission will have to, have to look at whether, in considering changing Tier 1 from 10 kilowatts to 25 kilowatts, the policy decision to extend the fee waivers and exemptions up to larger systems where you'd be getting into more commercial customers installing larger systems. For example, Verizon is installing a 25 kilowatt PV system on one of their central offices in Tampa, and that's great and we want to encourage that. But, you know, part of your consideration in changing the tiers is changing the, extending the, the fee waivers, manual disconnect switch exemptions, those type things.

CHAIRMAN EDGAR: Commissioner Argenziano.

COMMISSIONER ARGENZIANO: Well, isn't the fact that the fee waivers are there are to provide incentives and

encouragement to use the alternative energy?

MR. HINTON: Yeah. And that's what they're designed to be. It's do we want to extend that incentive all the way up to 25 kilowatts.

COMMISSIONER ARGENZIANO: Well, that leads to my second question. What is, and forgive me because I don't look at the kilowatt usage I use, I just look at the amount of the bill, what is the average usage in a family, let's say an average size family of kilowatts per month?

MR. HINTON: You've exceeded my knowledge base.

MR. FUTRELL: Commissioner Argenziano --

COMMISSIONER ARGENZIANO: Okay. Then it's not just me. I feel better.

MR. FUTRELL: Typically from what we've heard a residential customer may average maybe 6 kW. If everything is turned on in a typical home, everything at the same time, everything is running flat out, you could get up -- it could approach 25 kW from what we've heard.

COMMISSIONER ARGENZIANO: So -- Madam Chair.

CHAIRMAN EDGAR: Yes.

COMMISSIONER ARGENZIANO: So if a, if a customer wants to go full out and really, you know, put the solar panels and really just have everything pretty much running off their alternative energy source, you're saying that the 10 kilowatts would cover pretty much an average electric usage?

 $$\operatorname{MR}$.$ FUTRELL: It would. And typically that's what we see most residential customers installing is between 2 to 6 kW systems.

COMMISSIONER ARGENZIANO: Okay. Thank you.

CHAIRMAN EDGAR: Thank you.

Commissioner McMurrian, did you have further questions? Not at this time? Okay.

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MR. HINTON: And, again, as Mr. Keyes had mentioned this morning, addressing -- he had suggested that the Commission refer to the screens contained in FERC's order. During this process he had also presented some screens that were within IREC's model interconnection agreement. And where staff liked the idea of screens, it believes it can lend clarity and transparency to the process. At this stage staff does not know whether the screens that have been proposed are appropriate for Florida. We would like to gain some Florida-specific experience addressing these interconnections and allow the, the utilities the time to develop screens and figure out what is the best way for us to screen customers within Florida. And after a year or two or however long the Commission determines we discover that, gosh, we can just incorporate these screens within IREC, they work perfectly for Florida, that's always an option. But we can down the road incorporate screens that are more Florida specific.

But staff would note that we do have a certain 1 2 measure of screening within the system: For example, the 3 90 percent threshold, not exceeding 90 percent of the utility's service rating, falling within one of the tiers, equipment 4 5 certified and compliant with IEEE 1547, 1547.1 and UL 1741. 6 These are all levels of screens that, that add to the clarity 7 of the process and enable IOUs to expedite interconnection with 8 these customers. CHAIRMAN EDGAR: Commissioner McMurrian. 9 COMMISSIONER McMURRIAN: Thank you.

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With regard to the discussion about screens, and I think it was Mr. Keyes earlier that talked about it, I think you just mentioned that about the screens, would it be true that if, if a, if a renewable generator tried to make a demonstration to an IOU that they met these 13 screens or whatever other things they wanted to throw in, the utility would still have the discretion to say, well, I think you have satisfied my concerns and maybe we don't need to do an interconnection study with respect to yours? They would have -- they wouldn't have to do an interconnection study under the rule? Would they have the flexibility to waive it if they were convinced in a sense?

MR. HINTON: You know, under the staff, staff's proposed amendments the utilities aren't required to do an interconnection study. So if they, if a customer applies and they determine that, well, I think we're good, they don't have to do an interconnection study charge. We've, we've given that option for the larger systems to make sure that they have the ability to address the, address the potential impacts to the grid.

options would be, options would be lost for one thing because they would, you know, they would be eliminated through the screening process. It would, it would -- you'd begin with screen one. If you pass that, you move to screen two. If you pass that, you move to screen two over here to this side and there's a screening process or, you know, that bumps you into the study process. You keep going through the screens. If you fail one, that bumps you into the study process. And, like I said, staff likes the idea of screens. Just right now the screens that have been presented, don't know if they're appropriate for Florida yet.

MR. FUTRELL: And also I'd just add that we feel like from the discussion at the workshops about this idea of screens, it would take additional time, substantial time to work through those to make sure that they would work in Florida and that the parties and the staff were comfortable with the language in those. So we foresaw quite a bit of additional time to work through that to make sure we had a good product to present to you.

CHAIRMAN EDGAR: Thank you.

Okay. Cayce.

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MR. HINTON: Okay. If there are no more questions about Subsection (4), I'll proceed to Subsection (5), which is contents of the standard interconnection agreement.

A number of issues have been discussed through this process. Annual inspections was one, and I believe Ms. Clark brought that up again this morning.

At this point staff still believes that, that there's no need for the utility to perform these inspections that they're requesting. Staff's interconnection -- staff's amendments in this subsection would give them the opportunity -- they would be able to inspect the system before it's ever, before it ever comes online. They'll be able to be present when it does come online. The customer is required to get it inspected to ensure that it is with, up with local codes. The customer will have the responsibility to maintain the system, inspect it to make sure it's operating in accordance with the manufacturer's instructions. And if the utility detects power quality problems or adverse effects to the utility, to the electric grid, they do have the option to open the manual disconnect switch and disconnect the system.

Staff's not aware of any other circumstance where the utility has the option to come on the customer's side of the meter and do inspections. I don't believe there's any

provision for them to do that with cogenerators, and I know of no other, nothing that gives them the ability to walk into a customer's home on reasonable notice and at reasonable times and inspect their inside wiring. It's just --

CHAIRMAN EDGAR: Cayce, I think we may have a question. Commissioner McMurrian.

about this section, and it's similar to my last question. Is there anything barring the utility from asking the renewable generator to inspect? If they had -- if they could go directly to the customer and ask and if the customer gave them permission, they wouldn't be precluded from doing that, I assume. Right?

MR. HINTON: There's nothing that would preclude that. No, ma'am.

COMMISSIONER McMURRIAN: Okay. And then my second question is with regard to -- it was near the end of the discussion there and it talked about the -- I think IREC pointed out that a customer would need to notify the utility prior to making changes to their equipment, that you all have included that in the rule. Does the utility have the option to reinspect at that point after they get a notification from the customer that something has been changed?

MR. HINTON: Yeah. The language states that the customer will actually, they notify the utility by filing

another application, which would --

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COMMISSIONER McMURRIAN: So it would be like it starts the whole process over. They would get to come out again.

MR. HINTON: It would start the application process over. The difference is they're still interconnected but they would go through the application process again.

COMMISSIONER McMURRIAN: Okay. And I guess my third question is you've pointed out, and you said it a minute ago too, that they're able to disconnect if they see problems caused by the renewable generation system. Before they take the step of disconnecting though, would there be benefit in them inspecting, having a point of entry in a sense to inspect? At that point perhaps maybe there's no need to disconnect. Or would they need to in some way show proof of what the problem was before they take the step of disconnecting the system?

MR. HINTON: Yes. This language has largely been incorporated from the small PV rule. But I think it would be reasonable before the step of disconnection would take place, yes, it would be great to have some contact and conversation to confirm that there is a problem and whether it's an easy fix not necessitating disconnection.

COMMISSIONER McMURRIAN: I guess just thinking out loud, I guess perhaps before taking that step of disconnection the customer may be very amenable to letting them in to do

that, but I'm not sure that it's not something -- I just wonder if that's fully contemplated here in what we have before us that maybe before that step that maybe it would be reasonable to allow them to inspect at that point because maybe disconnection wouldn't be necessary. But it's sort of out loud thoughts.

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CHAIRMAN EDGAR: Commissioner Argenziano.

COMMISSIONER ARGENZIANO: If the company were to inspect, were to be allowed to inspect, and let's say the owner is not home even though they give a reasonable, say we're going to be here on Wednesday and here's a reasonable amount of time and no one is home, is the utility then liable for any damage that may occur upon inspection?

MR. HINTON: Again, you've exceeded my knowledge base.

COMMISSIONER ARGENZIANO: It's private property. It could be of concern.

MR. HINTON: Yeah. I would think allowing the utility to come on the customer's property to inspect the customer's property would open all kinds of unintended issues such as that. Whether they're liable for property damage or something like that, that would be a question for somebody from the legal side of things to answer.

COMMISSIONER ARGENZIANO: All right. And, Madam

Chair, probably one that I think is pretty important. And one

other question in regard to, you know, them just turning off the manual switch, wouldn't, wouldn't it be, if the company felt that there was some type of problem, if they saw -- I mean, we think there may be a problem. I would think there would have to be something indicating that there could be a danger or a problem in order for them to, to have that switch turned off and then, of course, notifying the owner, saying we had to turn the switch off because we see a potential problem here and would you like us to inspect it, which then may, may relieve the liability or the consumer do something about it, I mean, the owner do something about it themselves. I think you have to have some answers to just allowing the utility onto private property as to if something were to occur to that generating, generator, who would be reliable for that?

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MR. HINTON: Well, part of -- as far as the manual disconnect switch, that is required to be in, you know, proximity to the meter, which is an area that the utility has access to anyway. And coming on to the customer's property to flip that switch, it would not be the same thing as getting up on the roof to inspect a PV system.

COMMISSIONER ARGENZIANO: Right. Right.

MR. HINTON: So there are different issues there.

COMMISSIONER ARGENZIANO: But -- and that's my point, that they can do that. But with -- usually it would be with -- they'd have -- they're not just going to go and turn somebody's

switch off, you know, unless they have some kind of reasonable understanding that something is wrong here, you know, and it could cause a potential problem to the grid or --

MR. HINTON: To my knowledge, I don't know of a circumstance where somebody's system has been disconnected in Florida. I think there may have been one, but I don't know if it was a safety or power issue that caused the disconnection.

COMMISSIONER ARGENZIANO: Thank you.

MR. FUTRELL: If I could offer, there's a section in -- in the next section over on disconnect there's provisions that lay out the conditions upon which the utility may disconnect. So it lays out -- and it's usually emergencies or hazardous conditions or if there's some sort of adverse electrical effects on the system that they detect. So the rule addresses those conditions where they may disconnect.

COMMISSIONER ARGENZIANO: If I may.

CHAIRMAN EDGAR: Yes.

COMMISSIONER ARGENZIANO: And that's my point in saying that they have that ability to do that. Of course, if they see something that can cause potential problems, they have the ability to do that. And then upon having to do that, notifying the owner of the renewable generation unit, I would think that that would relieve them of the liability of any damage to that. And I'm not an attorney, but that's something to consider. I'm grateful I'm not one sometimes.

CHAIRMAN EDGAR: Hey, wait a minute. 1 (Laughter.) 2 COMMISSIONER ARGENZIANO: Sorry. Because, you know, 3 they have a reputation sometimes. Attorneys are very good 4 5 people, some of them. That's enough. I'm going to get out. 6 CHAIRMAN EDGAR: Ms. Clark, did you want to comment? 7 MS. CLARK: A couple of things. I think there was a 8 question of whether there's been a disconnection. I think -- I 9 recall during a workshop a discussion, I think it was during a 10 workshop that there was an instance where a generating facility 11 was disconnected but the power to the customer was left on and 12 that was the advantage of having that manual disconnect. 13 With respect to the liability, there are general 14 tariff provisions in the front of, well, I think they're in the front of most of the tariff books that talk about coming on to 15 16 customers' property and describe the liability there. 17 CHAIRMAN EDGAR: Commissioner. 18 COMMISSIONER ARGENZIANO: But I believe what you're 19 describing is to your own equipment, not to the owner's 2.0 personal equipment. 21 MS. CLARK: You may be right on that. 22 The other thing I would suggest to you is that 23 utilities have an interest in good customer relations and 24 they're not going to willy-nilly come on to a customer's

property and aggravate that customer. They are interested in

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giving them reasonable notice, looking at it and covering the cost themselves. It's not -- they want to keep the good customer relations in their service territory as well. So I think to suggest or think that it might be used in a way to be detrimental to the customers, I don't think that's the intent.

COMMISSIONER ARGENZIANO: Madam Chair, let me clarify that. I never said that. Okay? Not being detrimental to the customer. If -- and I wouldn't think they would go willy-nilly anywhere. That's not what I said.

If the utility had to go up on a roof to look at, inspect a system, and no one was there, somebody tripped, did something to the solar panel, who is responsible? I think it would be the utility. And I think that's something you need to consider.

MS. CLARK: I would agree with you. And I guess I should clarify that I was not suggesting that you had said that, but it did come up in workshops outside of when the Commissioners were there.

CHAIRMAN EDGAR: Commissioner McMurrian.

COMMISSIONER McMURRIAN: While we're on this point, I should ask Ms. Clark, I'm not sure if it made any sense what I asked but I'll try it again. Is there a need -- I mean, I realize what you've proposed here is upon reasonable notice at reasonable times the utility may at its own expense inspect.

And I guess what I'm trying to, to see, is there some kind of

middle ground or maybe it's not -- you know, maybe it doesn't go that far, but maybe there's times when you absolutely need to inspect and that it's more clearly spelled out so everyone knows what to expect what times the utility might do that? Is there a need to inspect before taking the measure of disconnecting too?

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MS. CLARK: I would think the utility would want to explore that option before they, they disconnect. And I think the reason the language we proposed was suggested is originally there was annual inspections in the rule or perhaps we proposed the annual inspections, and we were seeking some middle ground to just, just what you're concerned with. Where there are circumstances indicating a necessity to do that there should be notice, it should be a reasonable time to do that. And that was our purpose in suggesting this language.

CHAIRMAN EDGAR: Commissioner.

COMMISSIONER ARGENZIANO: Again, to that point, and maybe staff needs to find this out, have there been -- I mean, if you're talking about a residential unit that we require no insurance on because we feel they're pretty safe and would not cause a problem. So given that, have there been any examples of residential units, you know, harming a grid or doing something to the, to the utility? And if that's to be, if we're to consider having the utility inspect -- and you say upon reasonable notice, but that doesn't say the owner should

be there, you can't go on the top of the roof or on the solar panel without someone being there, and that makes a difference to me also. But if we're going to go that route, then I need to know who accepts liability if something does happen to that owner's generating system.

MR. HINTON: Commissioner, to answer your first question about whether there's been problems with residential systems harming the grid, I'll punt to Mr. Keyes down there. But from everything -- from discussions we've had during workshops there have been no problems across the nation that we're aware of.

COMMISSIONER ARGENZIANO: And -- Madam Chair. And that is part of the reason we're not requiring homeowners to have insurance.

MR. HINTON: Correct.

MR. COOKE: Commissioners, with regard to liability, you really get into a negligence type of analysis, a common law analysis. You're correct, Commissioner Argenziano, with regard to tariffs, at least I believe you're correct that the provisions address inspections relative, or going on a property relative to the utility's property.

When you start talking about going on to a homeowner's property, there's a whole body of common law regarding negligence. And, in fact, I think the homeowner could potentially be held liable if it's construed as

permissive and they have unsafe conditions that they could have corrected, et cetera. So I think, I think it's an area that could go both ways.

commissioner argenziano: Madam Chair. That's my only reason for pointing it out. It could be -- you could be asking for more than you really bargained for without looking into liability issues. And I think you're right, it probably could go both ways. But then again, if you are not invited and you jumped on my roof and fell through my panel, it's your fault. You owe me the money.

MR. COOKE: There's definitely a different duty owed to a trespasser than there is to an invitee.

MR. HINTON: In general, Commissioners, something to consider when talking about annual inspections is traditionally the customer's side of the meter is the customer's side of the meter and the other side is the utility's side. And do we want to begin allowing utilities to come in and inspect customer equipment?

MR. FUTRELL: And also just to follow-up, you know, throughout this rule staff has tried to strike a balance. You know, it's the customers making this investment in these systems and it's to their benefit to keep these systems up and running and maintained to capture the full benefits of these systems. We have included the provisions of the safety codes and safety standards that are in there to help ensure that

these systems are uniform and have the protection to help protect the grid. If there's instances where there's adverse consequences that happen, the rule addresses those and allows the utility to open the disconnect switch and then make those, work with the customer to make those repairs and fixes that need to be made. So, again, we've tried to strike a balance in the inspection process.

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Again, as Cayce mentioned, if there's an upgrade, that's an opportunity to take a look at what that impact could be to make sure the new increases in capacity are addressed. Again, the idea is with additional inspections we were concerned about the customer being -- concerned about, you know, the utility coming into this property on a regular basis or some unknown, unknown schedule and that could cause some concerns on the customer's part. So, again, we tried to strike a balance there to protect the system and yet recognize the customer's investment and allow them to capture all of their benefits of the systems.

CHAIRMAN EDGAR: Commissioner McMurrian.

COMMISSIONER McMURRIAN: I'll just -- I realize we're sort of on this a long time. But I guess where, where I'm thinking is, is that the proposal that we've got before us doesn't seem unreasonable, it just doesn't seem very specific, I guess would be my thoughts. That something that sort of spelled out maybe how much notice and whether the owner should

be present, as Commissioner Argenziano said, that could be a possibility. Because I don't think there will be that many times -- it sounds like if there haven't been disconnections, that we're talking about a very small number of times and that maybe that's a reasonable point that the utility could be allowed access. But there may be other instances, I'm sure, that the proposal goes far beyond that and may contemplate things that we just haven't thought of.

But it seems like it's reasonable to think that there's a certain time before disconnect at least that the utility should be allowed some access to look into it. But I'm not sure exactly how to wordsmith that, but it does seem like there's some way to maybe have some middle ground there. That maybe it's not reasonable times, reasonable notice and doesn't spell out the owner being present, but maybe some way to allow them in certain circumstances to do it. But I know that that's a lot of wordsmithing to do on the fly today.

CHAIRMAN EDGAR: Commissioner Argenziano.

COMMISSIONER ARGENZIANO: I think it's more of a private property issue you come down to, and I'm not sure that we have that right to do that unless there's some type of an agreement, a voluntary agreement that the utility goes to the, to the owner and says, look, you know, we may have a potential problem. Will you allow me? And if there's a voluntary agreement, well, then great. But I don't know that you could

force somebody to, you know, especially if it's not a utility line, and I think that's a private property rights issue. And I can tell you coming from the Legislature, they're very staunch about private property rights and, and I just see a potential problem there. So in trying to get there maybe you could start with a voluntary agreement between the utility and the owner. But then you still -- you know, if, if -- still may be subject to a liability issue if you go up there and break something.

MS. CLARK: Madam Chairman, I would just want to correct one thing. Cayce had indicated he hadn't seen a similar notice and inspection provisions in the QFs. I think it may not be in the rule but it may be in the tariffs that are, that are filed. I think I have seen, seen that. So there is precedent for that.

CHAIRMAN EDGAR: Commissioners, further thoughts on this point before we move on?

Commissioner Carter.

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COMMISSIONER CARTER: I was, I really -- I mean, I had planned on not saying anything. I was kind of waiting.

And I like the way you started out, Cayce, with the general overview. But I think in the context of what we're talking about here, the privilege that a person has in terms of being able to offer this service to utilities, it would be incumbent both with the property owner and the utility to have some

measure of, you know, of dialogue prior to any of these things happening. Because when you voluntarily enter into an agreement with a company to provide your excess coverage to them, I think that you put yourself in a posture where you and the utility -- at best it would be a good working relationship, partnership. At worst there could be some problems. And I think that in the context of entering or getting on to someone's property, there's a legal perspective in terms of what's reasonable notice and not. And I think that in this context where we're talking about people having the privilege, I mean, it's one thing to just say we have no choice, we've just got to sign up with a utility. But it's something else to say we're not just signing up with a utility, we are entering into a commercial transaction, and that puts you in a different posture.

And I just -- I was kind of -- and I'm still going to wait until you finish because I like the way you started out in terms of the scope of what this rule is designed to do. But I do think that in the context of a lot of the concerns about property rights will work themselves out because in the process of entering into the agreement with the property owner -- and obviously we want to make sure that we protect the homeowner, these commercial establishments can protect themselves, but we certainly want to make sure that we protect the homeowners.

And that's the kind of -- I'll just wait until you finish, but

that's more of an observation than anything else. Thank you, Madam Chair.

CHAIRMAN EDGAR: Thank you.

Commissioners, any further comments on this point?

MR. FUTRELL: Commissioner, Chairman, if I could

offer, you know, as Ms. Clark mentioned, in the co-gen rules

there's a recognition of, in the tariffs of inspections, and

that's something here that when we get into the tariff approval

phase of this once rules are adopted that we could look at

language on inspections and address it in that phase. Again,

we're not saying that inspections aren't a good thing. We're

just trying to set some standards here. And we can look, we

can investigate it further in the tariff approval process which

will become -- which will come before you after these rules are

adopted.

CHAIRMAN EDGAR: Ms. Clark.

MS. CLARK: I just want to be clear. Is Mark -Mr. Futrell, are you suggesting it could be something that
could be addressed in the tariffs that are filed pursuant to
this rule?

MR. FUTRELL: I would say that would be certainly an opportunity there.

CHAIRMAN EDGAR: Commissioner Carter.

COMMISSIONER CARTER: I was just saying that that gives the opportunity for the customer and the company to know

up-front what's expected of all parties and they can hash that out. Thank you.

CHAIRMAN EDGAR: Ms. Clark.

MS. CLARK: I think that might work. I think I'd like to ask people who are more knowledgeable about it, but I think that might work as long as the rule doesn't preclude inspections. I think we may be able to work it out, but I could let you know.

CHAIRMAN EDGAR: Okay. And I know that our staff will get with you as we, as we move along and then we can come back.

Okay. Cayce.

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MR. HINTON: And the last item in Subsection (5) that we've already discussed a little bit is liability insurance requirements.

As we've discussed, the recommended amendments would exempt Tier 1 systems from the requirements to carry additional liability insurance for the purposes of qualifying under this rule. For Tiers 2 and 3 there is a \$1 million and a \$2 million liability insurance requirement associated respectively with those tiers. Staff has included language within the, within the amendments that would allow customers to self-insure, provided they can, they can give proof of sufficient assets to cover those amounts.

But, again, this is one of those balancing things

where we're trying to, to help homeowners and remove some of the expenses associated with the customers, but also still recognizing that you've got to be kind of crazy not to carry liability insurance these days.

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And, and so we've looked around the nation -- not every state requires liability insurance, but those that do, what we've recommended is reasonable in comparison. I'll leave it there.

CHAIRMAN EDGAR: Okay. Ms. Webb, are you up?

MR. HINTON: No. Still me.

CHAIRMAN EDGAR: Oh, still you. Okay.

MR. HINTON: Subsection (6), manual disconnect switches. We've kind of gone into that. Mr. Coddington had brought up manual disconnect switches and the situation where a college campus where you have the master meter over in this location and three buildings over you have a PV system, and do you want the disconnect switch located by the meter or over by the PV system? I imagine that that would be largely up to the utility if they decided they'd rather it be located closer to the building. But customer side of the meter is still customer side of the meter. And presumably if the master meter is on Building A but the PV system is on Building C, the customer owns all the distribution lines between those two spots, and the utility is going to be wanting to make sure that the PV system is disconnected while they work on distribution lines on

their side of the meter. They won't be doing work on the customer's side of the meter. So presumably it would still be acceptable to have the disconnect switch at the meter location. However, staff would think it reasonable to allow the utility in situations like that to say, you know what, go ahead and stick it closer to the PV system.

Of course, right now in the rules it doesn't leave that much discretion in our current language and I don't know if it's necessarily needed, but staff is willing to entertain whatever the Commissioners would prefer in that regard.

CHAIRMAN EDGAR: Commissioner Carter.

COMMISSIONER CARTER: I think that in the hypothetical they were talking about on a college campus, having gone to college a few times I don't really think you want to have that manual switch near the dormitory, you know. (Laughter.) I can just imagine all kinds of things happening from that. So the location of the switch probably should be where the owner, the property owner wants to have the switch. It makes more sense to me, because there are certain things that are appropriate and specific based upon the type of property that it's located on. I mean, a university is one thing. It could be a nursery in terms of growing plants and things like that or it could be a day care center. You'd want to have it high enough to where -- so I think the, like you say, on the customer side of the meter, I think the customer

should have the authority to determine where the location of the switch should be. Because I, I don't know who started this with the hypothetical about the college campus, but I saw all kind of mischief from that.

MR. HINTON: Commissioner, one concern with that is reasonable access.

COMMISSIONER CARTER: Yeah.

MR. HINTON: We can't leave it to the customers' discretion solely because they're going to do the least cost option, which would be the closest they can install it to the PV system, the better. However, that doesn't mean that the utility will have access to the disconnect switch. We need to maintain that the utility has reasonable access, which is why we stated adjacent to the meter. That would allow the utility to access it without actually having to go too far onto the customer's property and fight off a dog.

CHAIRMAN EDGAR: Commissioner.

me. This is why I was suggesting earlier about this open channels of communication prior to entering into this agreement. All these things need to be hashed out up-front between the property owner and the utility. Because, yeah, the utility may say it's best to put it here, but if you're talking about site, if it's site specific, then nobody knows that person's property better than they do. So I think that it

would be incumbent upon them on the front end to make, make that designation.

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Like I say, is that, you know, we live in a college town and a lot of things happen in college dormitories and things like that. And it just seems to me that in the process of the channel, of opening a channel of communication is that these agreements are going to be over a period of time between a utility company and the property owner. So it would be -- I mean, how you start out is generally how you finish up. So if the property owner feels they have no discretion in terms of the location of the switch, then that's going to have a chilling impact in terms of whether or not they participate. But I think if they can say up-front, look, you know, we know that the utility company wants to put it in Spot A but we think based upon the specific nature of our property it would be better put in Spot B, and we'll give you access to that upon reasonable notice and all, but we want to put it here for the specific nature of our property.

MR. HINTON: Commissioner, the problem with making it accessible to the utility upon reasonable notice is because these are largely for emergency purposes, and they may not have time to notify the customer, find out where it is, get access. It needs to be accessible not only to the utility, but potentially the fire department may need to have access to these switches as well. But I think it's standard practice

that these need to be accessible and that is why generally we've required them in the proximity of the meter.

CHAIRMAN EDGAR: Commissioner McMurrian.

COMMISSIONER McMURRIAN: Thank you. Mr. Hinton, you talked a little bit earlier about the inverter-based, because the exemption, I was thinking the Tier 1 exemption was anything in Tier 1. But you pointed out the inverter-based criteria.

Are most Tier 1 customer-owned systems, are they inverter-based or --

MR. HINTON: What we've seen right now is, yeah, it's inverter-based. Largely what we see out there is PV, but there is some customer wind out there. We know of at least one person that's installed sort of a solar/wind combo on their land, and that may not necessarily be inverter-based. But potentially you'll have other technologies out there where a customer can build a digester on their land. It'll be maybe small but it's not inverter-based. It would be generating in AC. And we've, we've required them to have islanding features in the equipment that they use as a safety measure, but we know for a fact that inverter-based systems are safe and that's why we've felt the freedom to exempt them from that requirement just because of experience. As other technologies are deployed we'll have a little bit more information to go on as to expanding that exemption.

COMMISSIONER McMURRIAN: Okay. And just -- so you

only get the exemption if you have an inverter-based system.

MR. HINTON: Inverter-based system.

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COMMISSIONER McMURRIAN: But if you just have the PV, like you said, it wouldn't be, you would not get that exemption, and the customer would have to pay to have that manual disconnect switch installed?

MR. HINTON: Yeah. If you have an inverter-based system such as PV, then you would not be required to cover -- be required to install that switch. The IOU may require it as long as they pay the cost.

more question. With respect to the cost of this exemption, it's probably spelled out -- maybe it's good to ask Ms. Clark about this. It's probably in the SERC in the Attachment B, but can you point me to the costs involved with the exemption with respect to, to the manual disconnect switch with respect to Tier 1 customers who have the inverter-based system? Is that covered in the, in the SERC document? I'm trying to remember. Or if you've just got a number -- if you can give me an idea of how much cost we're talking about. It starts on Page 37 of this SERC. I didn't know --

MR. HINTON: Commissioner, Ms. Clark had earlier referenced, I think, \$1,200. During the workshop process we heard anything from \$300 to \$1,000, \$300 to \$1,200. So that cost appears to vary depending on who's installing, how much

wire is required, that type of thing.

COMMISSIONER McMURRIAN: I see. With respect -- on Page 40 with respect to FPL it shows \$1,253, and that's the cost of installing one manual disconnect switch. So that's a per customer amount that FPL has proposed, and I think there's some for the others.

What -- I guess this is for staff, Chairman. I'm sorry.

CHAIRMAN EDGAR: That's okay.

COMMISSIONER McMURRIAN: Just trying to think out loud. What kind of impact does that manual disconnect switch cost have whenever it's exempted in that respect? Do we have an idea of that? Is that also covered in here? I'm not sure. In a sense I'm asking what do you -- do you think that the impact on the general body of ratepayers from covering the cost of those manual disconnect switches is significant?

MR. HINTON: Staff believes that the subsidies involved with this are negligible. Of course, there is no subsidy until the next rate case, but staff does not believe that these will have a large impact on the general body of ratepayers.

COMMISSIONER McMURRIAN: Okay. Thank you. Thank you, Chairman.

CHAIRMAN EDGAR: Commissioners, any further comments on this point?

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Commissioner Carter.

COMMISSIONER CARTER: Thank you, Madam Chairman. I probably should have asked it before but I was waiting until we finish. But I think from what I hear and from what I've read is that on the Tier 1s we're trying to make sure that we focus on like the homeowners, just your average homeowner, someone, I think you said, with like, what was that they told you, 5,

MR. HINTON: That's the limit of --

COMMISSIONER CARTER: So you're primarily trying to do that just for the single household, just your typical family and all like that. So when it gets to Tier 2, we're taking it up another level. So that's why we're saying for Tier 1 we'd waive those requirements in terms of costs and all and those costs would be -- once there's a rate case, the entire body of ratepayers would take care of that cost.

MR. HINTON: Correct.

COMMISSIONER CARTER: Okay. Thank you.

MS. CLARK: Madam Chairman, if --

CHAIRMAN EDGAR: Well, in that rate case obviously that would be one of many, many, many, many issues that would get, I'm sure, discussion and analysis and audit, et cetera, et cetera. (Laughter.)

Ms. Clark.

MS. CLARK: I wanted to make two comments on, on the

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manual switch and the fact that it is for, the exemption is for inverter-based. The concern there is that when utility personnel comes on and needs to know that that system is off, can't tell from the inverter that it is off, that's why you still need the manual switch.

Given that, the utilities are either going to be installing these switches or they're going to be pulling the meter so they can be sure that there's no feedback from that generating device.

CHAIRMAN EDGAR: Okay. Let's move on, and I'm sure we'll be coming back. So, Cayce, do you have further?

MR. HINTON: My final subsection is Subsection (7), administrative requirements. This basically lays out the process for applying for interconnection and the time frames involved with executing the interconnection agreements. Not much to note.

CHAIRMAN EDGAR: Straightforward. Thank you.

MR. HINTON: Yes.

CHAIRMAN EDGAR: Ms. Webb.

MS. WEBB: Thank you. Karen Webb, Commission staff.

I'll go over Sections (8) through (11), Subsections (8) through

(11).

The first subsection, (8), net metering, covers a variety of topics, the first of which is the meter cost responsibility. Staff is recommending that the IOU install the

metering equipment at no cost to the customer because this would extend the Commission's current treatment of meter responsibility costs under the small PV rule.

The next issue covered under Subsection (8) is the meter type required. It's been suggested in prior workshops and in written comments that specific technology be required under this rule. Staff believes that nonspecific language would be best because that would preclude any future technologies that might serve the customer and the utility more efficiently. We would have to reopen the rulemaking each time new technology was introduced. And also this would prevent the utilities from having to rip out any technology that is currently sufficient for purposes of meeting the rule with the specific terminology requested. This is also consistent with the Commission's policy of establishing standards that the utilities must meet without specifying how the utility must accomplish that standard.

The next section discusses crediting and payment cycles for excess generation. It was raised earlier that it would be more cost-efficient to compensate the customer monthly. Staff has determined that the 12-month cycle that's proposed in this rule for crediting kilowatt hour -- for kilowatt hour better considers the seasonal nature of many renewable electric generating systems, and also the rates that staff is recommending appropriately balance the interests of

the ratepayers with encouraging more renewable generation in Florida. That's a very complex issue there, so I'll pause if you have any questions on that section.

CHAIRMAN EDGAR: Commissioner McMurrian.

COMMISSIONER McMURRIAN: I'm trying to think up a question on every one it seems like.

I guess this would be better directed at Ms. Clark since she's, she's proposed removal of this language here. And thank you, Ms. Webb, for addressing that about why you think the way that you've proposed it is more appropriate, about the seasonal nature and the appropriate balance with rates.

But, Ms. Clark, when you say reconciled on a monthly basis, at what rate? I guess that would be kind of Part A. I want to make sure I understand the proposal. And Part B would be similar to my last question about identifying the costs.

Because you've said, of course, it's a significant cost to automate the systems. And so if you could help point out sort of what costs we're looking at. I know some of those were in the SERCs also and that may help. And basically what cost would be saved if you were to reconcile on a monthly basis as you proposed?

MS. CLARK: I'm writing those down. Maybe you could as I get to them --

COMMISSIONER McMURRIAN: Sure.

MS. CLARK: First of all, Commissioner, in our

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comments that we filed we had a somewhat divergent view about the payment for excess generation. Gulf Power and Progress Energy in their, in their comments indicated that it's appropriate to compensate that at the avoided cost even on the monthly basis. That wasn't necessarily the main point of the other utilities' viewpoints with regard to this net metering. But the point being on the monthly, monthly charge, that it does reduce the cost to your system in not having to carry it over on an annual basis, and it has the advantage of delivering back to the customer the credit on the bill and it's easier for them to understand what they're being, what they've gotten for generating and putting that excess energy on the grid. It is covered in the SERC with regard to the difference in the cost. And what was your --

COMMISSIONER McMURRIAN: Chairman. I'll jump in and ask you too, when you were talking about crediting on the monthly basis, would the credits still be at retail or would it be at avoided cost? I understood what you said about Gulf and Progress Energy, but --

MS. CLARK: Well, the way that you rule it, with the deletion of that the credit would be at the retail the way you have it in the rule.

COMMISSIONER McMURRIAN: Okay. Thanks. I just wanted to make sure I understood that.

The, I guess the other question with regard to the

information in the SERC is I'm not -- there's information in here about how much it would cost for that requirement. But would you save those entire costs that are in here if you were to reconcile on a monthly basis or would there still be some of the costs that you would incur?

MS. CLARK: No. There would still be some of the costs. And I think FP&L provided that in their response, a comparison of the difference.

COMMISSIONER McMURRIAN: Okay. I'll look back at that later. I don't want to hold us up too much.

But I did have one more question for staff then.

With regard to the concern that's been brought up about avoided cost, does staff believe that the way it's proposed the crediting at retail and then the avoided costs sort of at the end of the 12-month period, do you believe that that mechanism in any way violates the statute where it, where it suggests that we use avoided costs?

MS. WEBB: We do not.

MR. FUTRELL: Commissioner, I think the way we looked at this is, again, we're looking at this as a behind-the-meter type of arrangement where this is a customer system and the net metering provisions here are designed to take advantage of the seasonal nature of these systems and help match up the generation with the customer's load. And so really we see this more as a billing type function to help allow the kilowatt

hours to be carried forward to match and allow the customer to benefit from these systems when the, when the load goes up. We don't see this as violating that provision, as you, as you mentioned.

CHAIRMAN EDGAR: Commissioners, anything further on that point at this time? No?

Ms. Webb.

MS. WEBB: All right. Continuing on in Subsection (8), the next area of discussion is customer demand charges. The language proposed indicates staff's recommendation that customers are responsible for the metering, billing and demand charges associated with their demand on the system, and therefore a reduction in their demand would result in a reduced demand charge. I'll pause there again if there are any questions in that section.

CHAIRMAN EDGAR: Commissioners, any questions for Ms. Webb at this point? No? We'll keep moving.

MS. WEBB: All right. Going forward, standby rates is the next area discussed in Subsection (8). The discussion we had this morning and the handouts that were presented with the modified language would presumably satisfy many of the objections. Mr. Futrell spoke this morning about the changes, and I believe he would like to provide a brief explanation of the whats and whys.

MR. FUTRELL: Commissioners, in the language

proposed, it would require customers in the Tier 3 that are above 20 percent of their -- the generation is 20 percent of their customer load would be required to take service under the standby rates. We've received a lot of comments about that and had a lot of discussions about the implications of this, and so we've presented to you and provided to you revised language that would essentially allow any customers that install generation to at their discretion go on the standby rate or take service under the otherwise applicable rate that they would be under. And we think that this will address some of the concerns that were certainly unintended, but that it could potentially reduce some of the economic benefits of these systems to customers.

CHAIRMAN EDGAR: Okay. And, Mark, am I correct that the alternate language that you've just described would be additional language -- I'm on Page 34 -- additional language added in Line 8 and the removal of language, the sentence beginning Line 11 through 15?

MR. FUTRELL: Correct. If you'd like for me to read that, I can do that, whatever your preference is.

CHAIRMAN EDGAR: Why don't you go ahead and read that into the record for us.

MR. FUTRELL: Okay. We would insert on Page 34 of the recommendation, Line 8, before the term "demand charge" -- after "demand charge" we would insert "for the maximum measured

demand during the billing period." And then beginning on Line
11 we would strike the language from Line 11 beginning with
"Tier 3 customers" down to Line 15 where it ends with "total
electric load." And, again, this is the part that would exempt
all customers from the standby rate. And then we would insert
on Line 15 at the beginning, "The customer may at their sole
discretion." So we're inserting the word "The customer" to
recognize that it would be up to the customer to decide whether
it would be beneficial to go on a standby rate or not given the
performance characteristics of their generating equipment.

CHAIRMAN EDGAR: Thank you, Mark.

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Ms. Clark, you had mentioned some points in this same paragraph but were holding your comments. Would you like to join at this time?

MS. CLARK: I think, Madam Chairman, I'm happy to say that if this change is made and one other change, I believe our comments go away and we can live with what is there.

I would just suggest that on Line 11 where it has the applicable rate schedule for non-generating customers, that you delete "for non-generating customers."

The concern here is just to make it consistent with the last section which allows the use of standby or supplemental rates because that wouldn't be applicable to non-generating customers. And I'm delighted to say I don't need to run through my examples. I believe that this has

1 changed.

MR. FUTRELL: We're comfortable with the change Ms. Clark has described. That would be appropriate.

CHAIRMAN EDGAR: Commissioners, any questions about that alternate language?

Commissioner McMurrian.

COMMISSIONER McMURRIAN: I have one quick one.

Mr. Coddington with NREL I think mentioned, one of his comments was about the use of the word "load," and I saw that that -
I'm not sure if that's the same place he was referring to or not, but it's part of the stricken language. So does that -
does anyone have it written because I didn't quite get where he was referring to? And I wondered if that took care of that issue for him.

CHAIRMAN EDGAR: Mr. Coddington, the language that you had raised, are we in that same --

MR. CODDINGTON: Yeah. We are in that section, and I think it's been addressed appropriately. Thank you.

CHAIRMAN EDGAR: Thank you.

Commissioner McMurrian, thank you for that clarification.

Commissioners, any other comments or questions about this suggested change to the proposed language? Okay. We will, we will hold, hold that. And then we're ready to move on.

MS. WEBB: All right. One more issue under 1 2 Subsection (8) before we move on to Subsection (9). Concerns 3 have been raised regarding totaling metering, additive billing 4 COMMISSIONER CARTER: I'm sorry. I didn't --5 CHAIRMAN EDGAR: Yeah. I didn't catch the end of 6 7 that either. Could you repeat? MS. WEBB: Oh, pardon me. 8 CHAIRMAN EDGAR: That's okay. 9 MS. WEBB: Concerns have been raised about 10 conjunctive billing with regards to this rule, and that issue 11 is covered under Commission Rule 25-6.102 of the Florida 12 Administrative Code. We have addressed in the recommendation 13 that a customer may circumvent this by assuming the 14 responsibility to provide the distribution beyond the single 15 delivery point. But as of this morning we have had some 16 discussion revealing some broader policy and legal 17 18 implications, and I believe that Mr. Futrell would like to address those. 19 CHAIRMAN EDGAR: Okay. And, Commissioner Carter, 20 21 just in case I'm reading your comment right, it was, I believe, 22 Mr. Bottcher who raised this issue initially. And Mr. Bottcher is here if he would like to make additional comment. 23 24

Mark.

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MR. FUTRELL: We certainly understand Mr. Bottcher

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and the agricultural interests and where they're coming from with this and appreciate them bringing language today for us to consider.

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There are broad -- while this is -- his concern is agricultural interests, there could be very broad implications for what he's suggesting, not just for agricultural, but for all other types of businesses that could have real implications on ratepayers as far as costs that they would have to bear and any potential cost shifting. So I would just alert you to that, that there could be significant impacts as a result of this, what he's suggesting.

CHAIRMAN EDGAR: Commissioner Argenziano.

COMMISSIONER ARGENZIANO: I'm very concerned that our ag community has the ability to put digesters and have that multiple metering. Are you suggesting because they would not then be responsible for the laying of the lines or whatever connections that it would, that would be the cost to the consumer, all the other consumers? Is that --

MR. FUTRELL: Right.

COMMISSIONER ARGENZIANO: And then probably other entities desiring the same?

MR. FUTRELL: That's correct.

COMMISSIONER ARGENZIANO: There is not another way of helping the ag community that really needs our help. I mean, we're trying to keep -- I know where they're coming from, and

they're at, they're almost at -- we're kicking our farmers out of the State of Florida every day it seems.

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CHAIRMAN EDGAR: But we aren't. I should make that point. We aren't. (Laughter.)

COMMISSIONER ARGENZIANO: Not us. Not us. No. I know I want to eat local food, believe me. I used to be the Chair of Ag and I know about that food that comes from other places. But is there another -- is there any kind of possibility of meeting them in the middle?

MR. FUTRELL: Well, there certainly could be opportunities to look at the conjunctive billing rule. Again, we felt like we were focusing in on the small PV rule and amendments to that and we didn't feel like we could go into carving out exemptions from another rule. That might be the venue to take a look at that rule and if there's any opportunities there to look at creating some, some opportunities that could be there.

MR. TRAPP: I'd like to also mention, if I might, that there is another body of rules that are in play here. It's called self-service generation, self-service wheeling rules that would allow wheeling of power at the wholesale level.

The problem with the conjunctive metering is that in order to -- the reason that there are multiple meters at a particular property is because there are lines serving loads

efficiently and effectively at those meter point locations.

The question becomes if you allow net metering to occur to consolidate all the loads at those meters, the basic, the net metering credit then offsets the distribution component payment to the utility who has had to build all those lines out there. It may be that on a case-by-case basis we could manage these issues more effectively than trying to address them in this rulemaking.

My concern is not just the agricultural industry, but, you know, you start getting into other industries that have significant impact on the distribution costs that are currently being paid under the rate structure that won't be paid until a rebalancing in a rate case.

COMMISSIONER ARGENZIANO: And I guess I understand that. I'm just trying to figure out in the case of ag I would think that in many places, and please correct me if I'm wrong, because I could be, I know there's a lot of space in between different operations on farmlands, and then you have smaller farmers who cannot possibly participate unless they're working together. So I don't know how the metering would be done. It would be a total disincentive for a smaller farmer to even try to participate.

MR. TRAPP: Again, if I understand the process of methane digestion, the centralization is of the input fuel, the cow manure. You digest it, you produce a gas, you generate,

generate electricity. Then what do you do with that electricity? Do you then sell it to multiple meter sites in some co-op or do you sell it to a utility? Right now because of PW Ventures you can very easily get into a retail sale situation where we have to regulate the rates paid for. And so it becomes a very more complicated issue when you're talking about setting up a central station generator that then distributes power to multiple locations. It's really quite beyond the incentive we're trying to establish for the conservation-based type, you know, systems.

CHAIRMAN EDGAR: And let me break in because

Mr. Bottcher has been very patient. Thank you. But I know you wanted to make some additional comment, please.

MR. BOTTCHER: I think it's obvious I didn't articulate as well as I had hoped because I think there is a, pretty much a misconception of what we're talking about, what costs are associated with what we're referring to doing, conjunctive billing.

This cost of doing the interconnection, the option that's now in the rule is that if the customer wishes to bear the expense to do the interconnection and bring it to a single meter, they may do that and they would get the benefits of the metering.

What's not being understood is that you can accomplish this same goal from an accounting procedure without

causing that cost to occur to the landowner, to the customer. It is -- that's where I think -- when we're talking about this excessive cost, if the cost of the interconnection is being put into the cost of allowing this to happen, it's the opposite. It's truly the opposite. If you allow this net metering, you will eliminate the cost of the interconnectivity that the customers will obviously have to do. I can give very specific, and I did at the workshop, of what this means; that if you don't allow multiple meters to do this, that it is worth it to the customer to spend the money to bring it to a single meter in order to get the maximum benefit. It is worth it to them. So in -- for my particular client, he will do that at great expense because it's to his advantage. The ultimate end is the utility will see the exact same metering occurring, but the rule has forced my client to expend a great amount of money in order to achieve that. If I'm not articulating this, please ask me a question so that it's clear how this is not really costing. It's actually a huge money saver.

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From a utility standpoint, to, to actually do this I could see it's going to reduce the net power demand from that client. And that a higher percentage of power will be demanded by them and they'll have to pay retail for it, and then 100 percent or a high percent may go out and be paid at avoided cost. There is that advantage. But we're going to take advantage of the fact of doing the interconnectivity and it's a

cost that's totally unnecessary.

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COMMISSIONER ARGENZIANO: I guess I'm still, I'm still tossing that around. I'm trying to figure out what accounting mechanism --

MR. BOTTCHER: Well, right now my client, for example, he actually has -- he's an exception. He has 42 separate meters because he's got irrigation systems that have meters scattered all around. We're not even looking at bringing all those in. But he receives one bill a month, I should say one envelope from the utility that has 42 bills in it for each one of those meters. And from an accounting standpoint at the co-op which serves him, they could easily just put those all onto a single piece of paper and there could be accounting. Any -- the costs associated, and it's a true cost, if you do that distributed adding the interconnectivity, it's a cost. And that's the reason we have separate meters because it is a lot more cost-efficient to drop down from the lines to individual meters. But the amount being paid on each one of those meters can be represented on a collective bill. There is a base charge from the utility from the fact that they have a separate meter, and that charge would still carry There is no -- none of that additional distribution through. cost that was associated with putting the extra meters in, they're taken, being taken away from the bill.

COMMISSIONER ARGENZIANO: Madam Chair, does staff

maybe -- it sounds, sounds pretty common sense.

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MR. TRAPP: I don't, I don't think I agree with the representation here.

COMMISSIONER ARGENZIANO: Okay.

MR. TRAPP: I think, yes, it's very easy to consolidate meters, you know, and it's economical for the customer to have that done. Because what's happening is you're taking advantage of a system whereby you're getting a retail rate, credit that's offsetting the cost of distribution that was laid out to serve those multiple meters. The customer is avoiding paying for the distribution facilities that were built to serve that customer. That cost has to go somewhere.

I think what staff is suggesting is that we're not quite willing to go to this level yet with net metering.

You've seen the economic impact statement that's presented for this rule with the assumptions of 2 megawatts, basically conservation measure type of thing, and they are minimal. If we get into eliminating the conjunctive metering rule, I think the level of magnitude of rate impact is going to jump significantly. Granted, I feel that. I don't know that. It needs additional study perhaps. But I think we're talking about a magnitude jump of revenue impact. And, again, you know, how much subsidy is enough becomes the question. It's a policy issue.

COMMISSIONER ARGENZIANO: Again, it's because of the

distribution, you're saying the fees for the distribution.

MR. TRAPP: That's my viewpoint. It's the, the avoidance of paying for the distribution that was built out there to serve all of those multiple meters.

COMMISSIONER ARGENZIANO: I'm sorry. At what point do you pay off the distribution costs? Does that ever happen?

MR. TRAPP: They're -- they are depreciated over the life of the facilities. And when the life is over, they are replaced and you re-depreciate the new cost. So, no, the cost never goes away. You always have -- as long as you've got a facility there, you've got to pay for it.

MR. BOTTCHER: Well, I agree the distribution cost is there and that is something that is being utilized in going to the method that I am talking about.

Now the thing is that there is, within the billing structure there is the base charges. And I would like for them to perhaps explain how much of the actual recovery of the distribution cost occurs from the actual rate versus the base charges that are in the bill. And that's, that's one aspect of it.

The other aspect I want to make clear is when you have somebody that's going to invest, and we're at the marginal level on the bioenergy side of things to get people to invest.

And when you have the single entity, in the case I'm using here, Suwannee Farms, they want to make the investment but they

have a distribution problem which may cause them not to make the investment. But it's a single entity. The same people that are pulling in power on one part of their property are the same people investing in the renewable energy. It's the same entity. And so I think that has to be taken into consideration.

And as far as the distribution costs, one thing that's happened, and this is true, I know, in just a couple of recent drops, I don't know how much recovery they're trying to get, the utilities, but for a fairly short distance it was a \$3,000 connection fee. There is a fair amount of the cost that has to be paid to get the initial connection. And I understand that not all of it is there and there's some down the road, but I can't emphasize how important this issue is if we want to get agriculture and some of the other businesses that have distributed power involved in this.

And I think, you know, as a Commission you're at a point now to where, you know, this issue of energy and getting renewable, other sources is so critical to our future that we can't, we can't look at some of these monetary -- perhaps there's going to be a little bit of that distribution cost, I'm sure, and I can -- I'm confident it's being overemphasized how much that is, but would have to be redistributed through whatever rate mechanism. But the benefits to sit here and say, oh, they can do it, they can go out there and spend a quarter

of a million dollars, which is what it would take for my client to do the internal redistribution system, to say, well, do that in order to get credit of this, when it can be done from a simple billing. Because you -- the power -- the utility will lose that power that's being used locally anyway. It really will not change their revenue at all. And I can sit down and go back through this again because the assumption would be that if we don't do the interconnection, yes, they're going to recoup all their costs. But we can do the interconnection because of the -- the penalty is so great for not allowing this to happen, we're going to put those expenditures out there and the utility will see the same condition as if they went to a net accounting adjustment.

MS. GERVASI: Commissioners, if I may, Rosanne
Gervasi with the Office of General Counsel. I don't know that
we can fix all of these concerns within the current net
metering and interconnection rule. And the reason being is
that Rule 25-6.102(3), which is the conjunctive billing rule,
expressly states that conjunctive billing shall not be
permitted. Bills for two or more points of delivery to the
same customer shall be calculated separately for each such
point of delivery.

So I think that in order to open up this discussion we might need to open up rulemaking on the conjunctive billing rule, which, of course, would require a notice of rule

development within that rule. We certainly don't want to have two rules that are in conflict with each other.

CHAIRMAN EDGAR: Thank you, Ms. Gervasi.

Okay. Let's go ahead and get through the rest of it, and then we can come back and see what other, what other questions we have. And we are getting toward the end, I know.

Ms. Webb.

MS. WEBB: Thank you. Moving on to Subsection (9), the renewable energy certificate section, it was suggested earlier that this subsection be removed altogether. That would mean that this proposed amendment would not address ownership of renewable energy certificates associated with customer-owned renewable generation.

Staff believes that neglecting to assign ownership within the language of this rule would leave the customer to negotiate with the utility when he goes to interconnect his renewable generating system. We believe that it's important to outline the requirements of -- to outline the ownership of these renewable energy certificates.

After reviewing the procedures that are outlined for other states, of the states that address renewable energy certificate ownership within their net metering loss, each of them assigns it to the customer. I'll pause there if you have any questions in that section.

CHAIRMAN EDGAR: Commissioners?

Commissioner McMurrian.

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COMMISSIONER McMURRIAN: Thanks. Ms. Webb, I think we talked a little bit about this this morning, but I guess the concern I have is assuming we eventually put in place an RPS, not we as in us, however that's done, let's say, let's say the state has an RPS and let's say it's an aggressive RPS, shouldn't we be concerned about the impact on the ratepayer of, of the need for a utility to perhaps buy RECs at that point? And is there, is there much possibility that at that point that RECs will have skyrocketed in a sense because a lot of customers out there, particularly some large customers would own these RECs and potentially the cost would go up? And I guess I'm just concerned about, you know, is there going to be a big impact on that end if we -- and I know that requires a lot of assumptions, but I think, I think I have to think about it, quite frankly.

MS. WEBB: There is a possibility the price could escalate. There's also a possibility the price would not escalate. Within the body of this proposed amendment there are places where subsidies are contained, and providing this renewable energy certificate to a customer is added value to that customer. We're attempting again to balance the interests of ratepayers with encouraging renewable generation. And it's, as Mr. Trapp suggested earlier, it's a question of to what extent we'd like to go. At this time staff has determined

based on reviewing the policies of other states that this is the most appropriate avenue for Florida.

CHAIRMAN EDGAR: Commissioner Argenziano.

COMMISSIONER ARGENZIANO: Just repeating it to make sure I get it right. By placing the ownership with the customer of the REC, that is the incentive.

MS. WEBB: Yes, ma'am.

COMMISSIONER ARGENZIANO: Okay. Thank you.

CHAIRMAN EDGAR: Commissioners, any other comments?

Ms. Clark.

MS. CLARK: Madam Chairman, you know, the point we're making is I think you need to consider very carefully the ownership of RECs when more than avoided costs or subsidies are provided. And my concern is what I would call the tyranny of small decisions, that you incrementally make these decisions that overall you would not make. And it, and it seems to me when the customer does all the investment and is responsible for bringing this thing online, yes, I think that they should have that renewable energy credit to do with as they choose. But in this instance and in those instances where other customers are providing incentives through the subsidies and through the avoided costs, shouldn't they get something in return? Should they have to be paying twice for that renewable energy, which in a sense you do through the subsidies and then through having to buy the RECs.

We're simply suggesting, look at it as an overall policy. At what point should some or all of those RECs be shifted to the customers, the general customers who have, in fact, paid some of the cost of that renewable energy?

CHAIRMAN EDGAR: Thank you.

Okay. Ms. Webb.

MS. WEBB: Are we satisfied with renewable energy certificates?

CHAIRMAN EDGAR: We are moving on.

MS. WEBB: The next subsection is reporting requirements. Staff is recommending that investor-owned utilities, municipal utilities and the electric cooperatives provide the progress reports to the Commission for the purposes of statewide reporting on customer-owned renewable generation. And this would provide generation data for the Commission in determining the extent that this rule has enabled renewable generation in Florida.

Subsection (11) reminds the reader of the Commission's existing dispute resolution processes. And that completes the text of our proposed amendment.

CHAIRMAN EDGAR: Thank you. Thank you to all of our staff. I know probably all of us have some comments and maybe even a couple more questions. So Commissioner Carter.

COMMISSIONER CARTER: I've just got one. It may seem insignificant, but what's magical about April 1? About

reporting, what's magical about the date of April 1? Is there something on our calendar or something within the statute or -you know, I can do a lot with April 1 being April Fools'.

CHAIRMAN EDGAR: Or are there reports due on that

day?

MR. FUTRELL: Yeah. We do typically have other reports due around that time frame, the Ten-Year Site Plan. And the idea is that it would give the utilities time at the end of the calendar year to, to summarize the data from the calendar year. So it would be effective as of December 31st and would give them time to prepare the report.

COMMISSIONER CARTER: Thank you.

They're due all year long.

CHAIRMAN EDGAR: Commissioner Skop.

COMMISSIONER SKOP: Thank you, Madam Chair. I have approximately ten minutes of just notes and concerns. Again, the way I organized it was more in line with the way staff articulated it in Pages 1 through 21. I'd be happy to defer if you'd want to take a lunch break at the appropriate time to ask those after lunch or I can go through them now.

CHAIRMAN EDGAR: Commissioners, what is, what is the will of the body? In all candor, I -- okay. Is there a need for a stretch or anything? Everybody okay? Everybody is hanging in there. Okay. We're going to keep moving.

Commissioner Skop.

COMMISSIONER SKOP: Thank you, Madam Chair.

FLORIDA PUBLIC SERVICE COMMISSION

If I could direct staff's attention to Page 8 of the staff recommendation at the top of the page, please. I agree with staff that PW Ventures is controlling before the Commission. And in light of the staff discussion, which I also support, I think that the transparency of the agreements to the extent that staff refers to customer-owned and the need for the customer record to contract and purchase and lease or for the operation and maintenance of onsite renewables, perhaps it's just a concern that I alone share. But, again, I think the transparency of such agreements is, is very important.

For instance, I could envision the case where sophisticated contractual agreements and financial transactions can serve as a proxy for circumventing the rule and the requirements of PW Ventures. So in that regard, particularly for the large scale generation at the commercial level like Tier 2 and particularly Tier 3, I would respectfully suggest that perhaps the IOUs might be provided discretionary review authority of such agreements for commercial applications prior to interconnection. I don't know if anyone shares that viewpoint, but I thought that was something to put out there because if there's an opportunity to arbitrage something, people are going to find a way to do it. And when you look at somebody being a synthetic provider of electricity, there's a lot to be gained there. So, again, I just think that it's important under the regulatory compact to protect the monopoly

that's granted to the IOUs to the extent that there's no funny business and then people availing themselves of the opportunity to put something on someone's roof, and then behind the scenes through convoluted agreements do something that does not comport with the precedent that's binding upon this Commission. So that's just a comment in passing.

Just Page 9 of the uniform tariff, the staff recommendation -- actually first and foremost, let me, let me go back because I'm remiss. First and foremost, I got ahead of myself, I wanted to commend staff for their hard work and dedication with respect to the proposed amendments to the rule before us. You guys worked extremely hard. And when there's many different stakeholders, it's often difficult to build consensus, and you guys have done a tremendous job of trying to take everyone's concern and mold it. And I know that there's been a few comments today and I'll have a few comments, but, again, I wanted to go forward and first and foremost thank you guys for the hard work that you've done.

Getting back into Page 9 of the uniform tariff, the second to the last paragraph, it states that the IOUs should review the models that have been developed by NARUC and IREC.

They -- my perspective is they may wish to review those. I have not reviewed them myself. But I don't know how readily applicable the models are to Florida, and even staff notes that more Florida-specific experience and development in

interconnection would be beneficial. So, again, instead of making it a mandate, maybe more permissive that that's something they might want to go look at as referenced as a, as a best practice for developing interconnection agreements.

On Page 10 for the customer qualifications and fees, we did have the Commission workshop, and I want to thank staff for incorporating the concern that came up with respect to the gross power rating not exceeding 90 percent of the service rating for the customer, and also addressing my concern about the oversizing of the system. Because, again, when you're talking up to 2 megawatts there could be a propensity for abuse. And, again, we want to be fair to everyone.

The other concern is on Page 11 that I had, and I want to apologize if my comments during the Commissioner workshop caused any confusion with respect to my concerns regarding the Tier 1 category in the small PV rule. I guess my perception is that if the goal of Tier 1 is to facilitate the deployment of distributed renewable energy generation at the residential level, then perhaps it may be more appropriate to increase the Tier 1 cap slightly.

And as an illustrative example, I could give two, but basically the PV solar arrays at the PSC, those are over 10 kW in rating. I think they're actually about 18 kW. But my concern is that you may have large homeowners that have the extra land or something like that that have huge houses, that

have the wealth and are environmentally conscious enough to want to go do this on a larger scale. And on the inverter-based technology, I think the cap at 10 kW, my concern, I think Commissioner Argenziano raised this previously in the Commissioner staff workshop, was the insurance requirement. Because, again, I think that if you can incentivize by not having that additional cost of carrying general liability insurance, there may be some benefit there.

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So I would respectfully ask staff to kind of take a look at perhaps tweaking the cap at Tier 1 from 10 kW maybe up to 18 kW or 16 or 14 or 12 or whatever staff felt more appropriate. But I do think some flexibility there for going over 10 kW would be appropriate. And that's kind of consistent with some comments that we've heard today. And I do apologize if my past comments have caused any confusion with respect to my position in that area. But I do think that that should be tweaked up slightly, certainly under 20. 25 I think is too much because you get into a larger power provider and there's some issues that go with that and some liabilities. But I just wanted to express that.

Moving forward, on Page 13 at the top, and I think

Commissioner Carter as well as Commissioner McMurrian have kind

of addressed these concerns and I commend them for doing so,

with respect to the annual inspections, one of the concerns I

had was that reasonable notice would be appropriate, but also

too with property interest it seems to me that some sort of voluntary consent agreement between the customer and the IOU would be appropriate as a prerequisite for interconnection.

Not to make additional requirements, but there may be times for safety, as Cayce has mentioned also, the fire department or what have you may have to get in there and look at things or just -- excuse me. That's getting into a different story. But there may be times where the IOU needs to go in and inspect something for whatever reason, and I think that it's important to work out or flesh out that issue, as Commissioner Carter has raised.

With respect to indemnification on Page 13 and 14, at the top of Page 14 it speaks to the IOUs and that indemnification is already covered within the existing retail service tariffs. And, you know, I have heard instances where there have been faults or what have you that have caused damage. And so getting to Commissioner Argenziano's point, I can't envision PV harming the grid, but I might envision the case where the grid could harm the PV without certain protective measures that I think would be a critical part of any PV system that would be sold. So, again, I have seen customer complaints with neutral faults where it has caused some significant property damage in the residential side. And, again, I think certain protective devices would be incumbent within the PV system themselves to prevent that from happening.

With respect to liability insurance coverage on Page 14 and 15, again, my concern on Tier 1, having the exemption from the insurance and hoping that that would be covered under the existing homeowner's policy, bumping that Tier 1 cap up a little bit higher I think avails consumers of the benefit of not having to go out and purchase a \$1 million general liability policy for something that's still relatively small in nature. I think Progress at their Solar Wise event that they had recently unveiled an 8 kW array and it was pretty small. So I could envision a homeowner with sufficient desire to do so to, easily wanting to go beyond 10 kW, and I think that we ought to encourage that. If that's the goal of Tier 1 is to encourage or deploy distributed renewable energy generation at the residential level, I think that's a good thing.

With respect to the manual disconnect switch, I think that there's been some -- I do believe it's an important safety measure, and I'll skip through that briefly and address it at the end in terms of the costs.

I do like the staff recommendation though about the, in the absence of having a safety switch, which, again, from a product liability perspective I would think that any, any provider of a PV system would want to include that as part of the cost of the system. But in the absence of that, the staff recommendation to have the IOU notify the customer of

disconnection with the door hanger and then necessitating the requirement to flip the switch back on when they're done is a good thing to the extent that it supports the net metering.

I'm trying to cover all of this with my red tabs

here, so please bear with me. And I know I've missed one about

the -- actually, let me see. It might be right here. Actually

it's right here.

Okay. Finally with respect to the renewable energy certificates, I think RECs are a contentious issue at best, as we've heard today on a couple of points; first and foremost the subsidy argument made by the IOUs, but, secondly, the overall benefit to the state. And I think what's implicated is the ownership of RECs is at issue. And we may -- and I tend to agree with the IOU position that we may want to address this at some appropriate time in the future and bifurcate it rather than trying to undertake the property owner or property interest in the RECs themselves.

On one hand, you know, I could look at DSM rebates suggesting or implicating the fact that maybe the utilities would be the best owner of the property interest since it was a subsidy on behalf of all the ratepayers to encourage DSM through the rebates. On the flip side of that, you know, the state does offer some rebates, so you could make an argument there that maybe there's a state interest that's implicated.

But, you know, I am equally sensitive of the desire by the IOUs

to aggregate in-state RECs from distributed generation to comply with the yet to be determined RPS. But typically the way I've seen it is that the generator typically owns the RECs themselves unless the PPA or the power purchase agreement assigns it to the offtakers.

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But with respect to RECs I do want to address one issue, again, because they are a contentious issue. And this goes to the -- I think I've addressed the subsidy issue on the part that the IOUs have made. But with respect to the benefit to the state, in some instances out-of-state RECs is essentially tantamount to buying thin air to the extent that it's otherwise, a poor substitute for otherwise developing in-state renewable resources. And so I have some, some concerns there because, again, we need to do, with limited resources do what's best for the state. And I recognize that RECs will be an important aspect of the RPS requirement because we don't have unlimited renewable resources in Florida, but certainly I do have a preference for in-state RECs and certainly I am sensitive to the desire on behalf of some of the stakeholders to aggregate those for compliance with the RPS. But enough on RECs though. I would just propose that perhaps we bifurcate them or address the ownership aspect at a different point in time, because I think that they're important to the rule but I think the jury is still out on who owns the property interests there.

But, again, I can see the arguments for making a case that they should inure to the benefit of the utilities to the extent that a lot of these programs are financed under or subsidized under -- or provided rebates under the existing DSM measures that the utilities have implemented at this Commission and my colleagues have all approved many times.

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I think finally on Page 22 right, right below the -or within the renewable energy certificate section they talk -or staff recommends that any cost or equipment required to certify RECs that are retained by the customer should be borne by that customer. I had looked at that as going back from a net metering to kind of a dual meter type of thing where you have a circular argument. And I know that on Page, Page 5 staff had delineated the, the differences between dual metering and net metering. And to the extent that with dual metering the value of excess energy is credited to customers' bills each month based on the IOU's avoided cost rate -- and I have heard some comments from some of the stakeholders stating that some stakeholders are comfortable with that and others are not, they'd rather do it on an annual basis. But I just kind of wondered -- you know, we went from a net metering to a dual metering thing to keep track of who owns the TRECs or the RECs themselves. And I just kind of think that, you know, that may be even another reason in itself to defer the discussion on that for a more appropriate point in time until we can resolve

at least some of those issues or address some of those issues.

And, let's see, hopefully I want to cover everything so I'm not remiss.

Finally, on Appendix B -- and hopefully, Chairman

Edgar, I'm making good time here and I haven't exceeded my ten

minutes. I'm trying to warp drive through this. But on Page

40 that --

CHAIRMAN EDGAR: I've got 18 minutes, but who's counting.

(Laughter.)

COMMISSIONER SKOP: 18? Really? Oh, okay. I'm trying to do it right.

CHAIRMAN EDGAR: Take all the time you need, really.

COMMISSIONER SKOP: No. I'm trying to get through this briefly because, again, I do, I do want to commend staff for an excellent job. Again, my primary concerns are the Tier 1 cap and the renewable, I mean, the renewable energy credits, and this is pretty much my only big concerns.

But with respect to Page 40, I think Commissioner

McMurrian raised this issue, and the FPL estimate of the cost
of the manual disconnect switch versus the TECO estimate on

Page 41, which I think includes the meter and the disconnect
switch. You know, I don't know how complicated the costs or
what have you would be with a disconnect. Perhaps it could be
as simple as just a meter -- I mean, not a meter but a pole

breaker that would be a disconnect. That way you'd electrically isolate the PV system similar to what you'd have on an air handler. I've got one of those. I just walk in, flip the thing and yank the thing out, thingamajig, whatever it is, and that seems to work. And I don't know how expensive that would be, but, again, I think some of the issue associated with that is that what is the value of the disconnect switch? I think from a safety perspective, and I think Ms. Clark raised that issue, that that value is pretty high, as well as locating that very proximate to the meter so that the IOUs can get to that or emergency providers or responders can get to that to isolate it electrically, if necessary and proper to do so.

With respect to who's supposed to bear the cost, it depends on what the accurate reflection of the cost is. And with respect to the numbers on Page 40, I just wanted to ask if staff has had any opportunity to evaluate whether those numbers are an overprojection of what the true cost should be. I mean, would it be as simple as \$40 to put in an interconnection? And I just wanted to raise that issue.

CHAIRMAN EDGAR: Cayce.

MR. HINTON: Yeah. Commissioner, the numbers that I see on Page 40 fall within the range that has been discussed within the workshops. Like I said, I've heard anything from \$300 to \$1,200 during this process.

COMMISSIONER SKOP: Okay.

1 MR. HINTON: So that's within that range.

COMMISSIONER SKOP: Okay. Very well. Like I said, I do think it is -- from a PB, excuse me, a PV provider, you know, I would, I would kind of wonder whether that disconnect switch would be part of the PV system that was sold to the consumer to begin with. But in the absence of that, again, I think that's another issue particularly from a safety standpoint that's important. But who is to bear the cost of that and where should that disconnect be? And I think

Commissioner Carter raised the issue and then there was some discussion with respect to the need to have that proximate to the meter for -- and I think, Cayce, you raised that issue. So that's the only other thing I wanted to touch on. With that,

Madam Chair, thank you very much.

CHAIRMAN EDGAR: Thank you, Commissioner Skop.

Commissioners, if there are additional questions for our staff or the other parties who have participated and given us comments and suggestions, this would be an appropriate time, I think, to raise those.

Before I ask to see if there are some, and I'm sure there are, you know, I guess I would like to just comment and again thank our staff, as others have done, but recognize that in any rulemaking, especially one like this where we really are looking at things a little differently than maybe as a, as a state we have in the past and that we are trying to, in my

opinion anyway, move some policy initiatives forward, that it is very difficult to have every word and every line and every paragraph be completely word for word exactly what everybody would like. But I do think our staff has done an excellent job, as they usually do, in taking the comments that we have given over time and the comments of all the participants, both at the workshops and in writing, and trying to put them all together into a proposal that makes sense coherently with the different pieces working together. And so I, as I know others have, commend them for that.

And I guess I would just give this word of caution, speaking only for myself, of course, I am hopeful that we can move the initiative forward and not get too hung up. The details are important, absolutely, we want them to be right, we want them to work, I know, but I would hope that we would keep in mind the goal that we're trying to do and realize that there will be opportunities to revisit some of these issues at future points, and also as we address other issues that are certainly related.

So with that general comment from my perspective are there some more specific comments or questions that we'd like to pose?

Commissioner Carter.

COMMISSIONER CARTER: No questions to -- just a procedural perspective, Madam Chair, on how you want to proceed

with what we have here. The reason I'm asking that question is that from staff's perspective, the item on Page 34, the highlighted shading, staff said they had no problem with that information. The information from Mr. Bottcher, staff said they did have a problem with that. We've talked about some other information as well that was presented to us. For an example, I don't know what staff's perspective was on -- except for Subsection (9), which was the renewable energy certificates, staff would -- rather than go with Ms. Clark's position, staff was saying they would stay where they are on -- and I'm just trying to kind of put it all, my mind around where we are in terms of what staff had recommended so we have some kind of perspective on where we are and what we're looking at so we all know we're looking at the same thing.

CHAIRMAN EDGAR: Commissioner Carter, thank you for that. And I think you've done a good job of kind of wrapping that up. As we all know, we are at the -- and, of course, our legal counsel will correct me if I get this wrong -- but we are at that point in the process where we have proposed, proposed language in front of us. And if we want to move forward to the next step in that rulemaking process, we will need an affirmative vote to do so. However, we do have the opportunity to make language changes at this point and still move forward, but that has to be done with specificity as to wording and language.

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As you described, Commissioner Carter, my understanding is that we had some suggested language change which was read into the record and deals with the standby charge issue that is in Subsection (8)(h), I believe, on Page There seemed to be, I'm not trying to over, overstate it, but I think there seemed to be some consensus on that language change from our staff, and I think I saw nods across the bench here. As you've described, Mr. Bottcher and Mr. Walmsley had suggested some language on Section (8) that we did hear some concerns from our staff and also from our legal counsel as to whether we were in the proper procedural posture to be able to address that. That certainly carries weight with me. And then Susan Clark had offered us a couple of different unnumbered pages with some suggestions. And if there are questions from, from Commissioners, we can certainly address those. re-sum your sum up, I think that's where we are.

Commissioner Skop.

COMMISSIONER SKOP: Thank you, Madam Chair.

Just one quick question to staff with respect to one of my comments on Page 28, Attachment A, with respect to Line 3, on Tier 1 a 10 kW or less, what is staff's position with respect to the ability to tweak that number upward somewhere?

MR. HINTON: The Commission has discretion to do whatever they'd like to do at this point in the game. You

know, you have our recommendation before you and you can, you can tweak that how you desire.

COMMISSIONER SKOP: Okay. Thank you.

CHAIRMAN EDGAR: Commissioner Carter.

COMMISSIONER CARTER: Madam Chairman, the reason I was asking you that is that I do think that we need to move forward so that the process can move and people have an opportunity to be heard as we go forward in promulgating this rule.

We are -- as I see it, the rule from my perspective and what staff has done and our discussion today and where we are is that I think we struck the proper balance in terms of encouraging interconnection and net metering of customer-owned regeneration facilities. We've kind of struck a balance between what, what it should cost to do that being paid by the general body of ratepayers. So obviously we want to incentivize people, but we don't want to incentivize to such a point to where, you know, we put an extraordinary burden on the general body of ratepayers. And I think that generally staff in the recommendation that we have before us have done that, particularly in light of what we've had today.

The only thing that I was concerned about, Madam

Chairman, and I obviously want to move forward today, is I did

have -- I didn't hear staff's feedback in terms of -- I do know

that on Subsection (9), I guess that would be Page, the last

page of Ms. Clark's report or recommendations, but I didn't hear staff's feedback on the rest of the other four, I guess it's four other pages, and I'd be interested in hearing that.

CHAIRMAN EDGAR: Okay. We'll look to our staff. And I think, Mark, if you could, the document that Ms. Clark had passed out that has a couple of different pages attached together. And I think, Commissioner Carter, if I'm hearing you right, you'd like to ask staff to address the suggested changes on the first one --

COMMISSIONER CARTER: First four pages. Yes, ma'am.

CHAIRMAN EDGAR: -- two, three pages, I believe. The fourth one is the standby charge that we've, that we've addressed. Okay?

COMMISSIONER CARTER: Got it. Thank you.

CHAIRMAN EDGAR: Okay. The first three pages, could you briefly, Mark or Cayce or Karen, whoever would like to, kind of give us your brief feedback on those requested or suggested changes?

MR. FUTRELL: The first one is Section -- Subsection (5)(b). This is dealing with the inspections. And the language that they would like to see added to Subsection (5)(b) is "upon reasonable notice and at reasonable times the utility may at its own expense inspect the customer equipment and protective apparatus." And I think we had some extensive discussions about this. Again, this is something that could be

potentially worked out in the tariff filings. We're not saying inspections aren't appropriate all the times. We certainly are concerned about any extensive use of inspections that could raise concerns of customers. We also had discussions about coming on to the customer's property and any potential incidents that could happen there.

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You know, we feel like we've tried to strike a balance in our rule amendments of recognizing inspections at the front end and then during any changes. And then we also have built in safety requirements of the safety codes to ensure that these systems operate properly. But, again, this is something we could certainly look at in the tariff approval process.

CHAIRMAN EDGAR: Okay. So I think what I'm hearing you say is that, to repeat, that realizing that if this rule goes forward or something very close to it, that then it will be back before us to approve the tariffs for the fees and related costs that are part of, part of the rule, and that that would be a time to, to further add maybe some specificity or clarity on a couple of different points.

One, just to throw this out, would be if -- language maybe similar to this, but maybe to add the requirement that the equipment owner be present at an, at an inspection that is at a reasonable time and is reasonable because I'm all for reasonableness. But that might, might just be one additional

1	suggestion to address some of the concerns that I think we've
2	all, all heard and expressed about private property and
3	liability and those sorts of things. So just a thought.
4	Mark.
5	MR. FUTRELL: Okay. Ready to move on to the next
6	page?
7	CHAIRMAN EDGAR: Commissioner Carter.
8	COMMISSIONER CARTER: I've got nothing but
9	MR. FUTRELL: I'm sorry.
10	CHAIRMAN EDGAR: It's low blood sugar. (Laughter.)
11	Commissioner, you need to hit your button, I think.
12	Thank you.
13	COMMISSIONER CARTER: What is your actual
14	recommendation upon this language here? I'm trying to kind of
15	bring this in for a landing.
16	MR. FUTRELL: We're recommending that to deny this
17	particular language and address these concerns about
18	inspections in the tariff approval process.
19	CHAIRMAN EDGAR: So at, at a subsequent step in the
20	process, I think.
21	Commissioner McMurrian, did you have a question?
22	COMMISSIONER McMURRIAN: Well, yes. Thank you,
23	Chairman.
24	I guess I was trying to follow if we were inserting
25	about with the equipment owner present, would that be have

we figured out where we would put that, Mark, Mr. Futrell?

CHAIRMAN EDGAR: My suggestion, which I'm not wed to at all, but would be just kind of at the end "upon reasonable notice and at reasonable times the utility may at its own expense inspect the customer equipment and protective apparatus with the equipment owner present."

COMMISSIONER McMURRIAN: Oh, okay.

CHAIRMAN EDGAR: Yes, Commissioner Argenziano.

COMMISSIONER ARGENZIANO: I think that's a step in the right direction, but it doesn't take care of all my concerns with liability issues and the fact that the utility is now entering upon the customer's private property with their private generating unit. So I have some concerns there.

I actually like the language the way it is, the way staff had it. I think you addressed the concerns. You know, by having someone there is better. But if it's something that the utility finds to be urgent, that's not going to solve the problem. So, you know, voluntary agreements or some way. But as I said before, and I don't want to just go on about it, but we're not requiring insurance because we don't think there's real problems associated with these small units. And, and, you know, we don't think, really don't think, from what I gather, that there's going to be such a tremendous amount of problems. So I have to wonder why the utility has to go up there and inspect it to begin with. So I have -- that may help, but it

doesn't solve all my problems with the liability issue and private property rights.

CHAIRMAN EDGAR: So, Commissioner Argenziano, am I hearing you correctly that your preference at this time would be the language that staff had proposed originally without any changes, with the understanding that, again, some of these issues will have further discussion and further opportunity for

COMMISSIONER ARGENZIANO: Sure. Absolutely. Yes. CHAIRMAN EDGAR: Okay. Okay.

MS. CLARK: Madam Chairman, just so I'm clear.

CHAIRMAN EDGAR: Ms. Clark.

MS. CLARK: The issue of inspection is something that can be addressed in the tariff filings. This rule should not be interpreted to preclude addressing it in the tariffs.

CHAIRMAN EDGAR: I think we're saying the same thing, I think we all are, but I want to again make sure that I'm not presupposing too much. Okay. So my answer, just for me, is yes.

Okay. Mark, the second page, please.

MR. FUTRELL: Okay. Second section, they're suggesting Subsection (6)(a) where they are striking the sentence that says "inverter-based Tier 1 customer and renewable generation system shall be exempt from this requirement unless the manual disconnect switch is installed at

1 the investor-owned utility's expense." Again --CHAIRMAN EDGAR: Commissioner Carter. Sorry, Mark. 2. Commissioner. 3 COMMISSIONER CARTER: This part -- thank you, Madam 4 5 Chairman. 6 I think Cayce went on extensively saying that these 7 are the types of units that we actually have experience in and that's why we put in the language to grant the exemption there 8 9 because these are the ones that we actually have experience in. 10 And so I would be, I would be less likely to want to remove that because this is something we actually have experience in 11 doing. We probably need to do what we do best. So I would 12 have heartburn with taking that out. 13 CHAIRMAN EDGAR: Thank you, Commissioner Carter. 14 15 Commissioners, any other comments on this suggested 16 change at this time? Seeing none. Mark, did you have 17 additional comment? I didn't mean to cut you off. 18 MR. FUTRELL: No. Just that staff's recommending we 19 retain the language as written. We feel there's adequate 20 protections there. 21 CHAIRMAN EDGAR: Thank you. Yes, sir. 22 23 MR. CODDINGTON: Just a quick comment. I did want to 24 highlight the fact that most systems do have between six and

nine separate means of disconnecting the system, which would

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effectively disconnect from the grid. And, you know, those have been effectively, you know, proven on these small systems over the years. And so there are a number of means to get that system disconnected if there were an emergency.

I just finished writing a white paper for the

Department of Energy on this particular issue, and it's been -you know, there's just a lot of great technology that's gone
into this and a lot of input from utilities on the codes and
standards that have been adopted, and those have very
effectively addressed the concerns with disconnecting these
systems. So I appreciate it. Thank you.

CHAIRMAN EDGAR: Thank you, Mr. Coddington. Thank you for that additional comment.

Mark.

MR. FUTRELL: The next comments they have is they would recommend that Subsection (8)(f) of the rule be deleted in its entirety. This is the section that essentially is the heart of the net metering subsection that allows the customer to carry forward any excess generation credits to offset usage in future months. And staff feels that this section should be retained in the rule as this is what net metering is all about, allowing the customer to take advantage of the seasonal nature of the generation and better match the generation with their load. We recommend this language be retained.

CHAIRMAN EDGAR: Commissioners, any further

discussion or question on that point? Seeing none. 1 Okay. 2 Commissioner Carter, did you have --3 COMMISSIONER CARTER: This is (8)(h). Did we do that 4 5 already? CHAIRMAN EDGAR: (8)(h), we are -- if indeed that's 6 where we go, is being addressed in the language that staff had 7 put forth with the shading, the separate page. 8 COMMISSIONER CARTER: Okay. Thank you. 9 CHAIRMAN EDGAR: And we had talked about that kind of 10 11 working together, I think. Okay. 12 Okay. Commissioners, questions? 13 Commissioner McMurrian. 14 COMMISSIONER McMURRIAN: Yes. Thank you, Chairman. 15 I asked a number of questions regarding the costs throughout our discussion today and I do have several concerns about that. 16 Like most issues we decide there's a balance to be struck, and 17 I think staff has proposed something workable and timely 18 despite those lingering concerns I have. 19 I did want to come back to the issue about the RECs 20 and the issue of bifurcating that out. I think I would be more 21 comfortable doing that as well. I know Commissioner Skop 22 proposed that. Again, I think we've talked a lot about the 23

costs that are embedded in this rule and about some of the

subsidies involved and how that, how balancing -- I'm sorry.

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CHAIRMAN EDGAR: I'm sorry. I was just saying it was Section (9). I'm talking to myself. I apologize. I didn't mean to interrupt you.

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COMMISSIONER McMURRIAN: I was just saying I realize it's a balance on those things where we, where we have some subsidies built in. We're also balancing that with the need to move this forward and to promote renewable technologies in the state, so I agree with that. But I guess I would feel more comfortable with what we're proposing if we were to separate the REC issue out. I guess I just don't feel like at this point that I have the information I need to decide -- perhaps not forevermore because we can always change a rule in the future, but whether or not to award the RECs to the customer or the utility. And perhaps maybe even as we look at it going forward maybe there's some way to share those. I don't, I don't know. I think that it does also promote renewable generation to give them to the customer. At the same time I have these lingering concerns about what we're, what position we would be in if there is some kind of RPS. So I agree with Commissioner Skop that I think for me I would be more comfortable in bifurcating that issue out and taking it up at a later time when we continue to look at renewable promotion.

CHAIRMAN EDGAR: Commissioner Argenziano.

COMMISSIONER ARGENZIANO: When, when you talk about bifurcating the RECs, are you talking about for the Tier 1

customer or are you making a separation from the Tier 1 to a Tier 2 and 3?

COMMISSIONER McMURRIAN: Commissioner, I believe it would be, you know, as proposed just deleting the whole subsection on renewable energy certificates. So I think that that would apply to all three tiers. I see Mr. Futrell nodding.

MR. FUTRELL: That's correct. That's correct,

Commissioner.

COMMISSIONER ARGENZIANO: So then you're saying then in our proposal today that would not even be addressed or you're bifurcating it to split the credit between the customer and the utility.

COMMISSIONER McMURRIAN: Actually I was, I was proposing to bifurcate it, and I think that's what Commissioner Skop, and he can correct me if that's what, if that's incorrect, what he was proposing is to put it off for discussion at a later point, not necessarily throwing out any sharing now, because I'm not sure exactly how that would work. I would be uncomfortable doing that now. But I think that we could look at the RECs at a later time. In the meantime, as I understand it, from what I think Ms. Webb said, in the meantime it would be up for the customers to negotiate with the utility. So with the rule going into place and with what's currently in place with the PV rule, that would be the way it would be done

until we decide at some later time, I guess, between the customer and the utility or some kind of sharing of that.

COMMISSIONER ARGENZIANO: Okay. So I'm sorry. I totally -- I was thinking you were talking about bifurcating the credit, not the bifurcation -- I've got you. I agree. We need, we need more time to deal with that issue. I agree with that.

COMMISSIONER McMURRIAN: Thank you.

CHAIRMAN EDGAR: Okay. So, Commissioner McMurrian, what you're suggesting right now for discussion is to remove Section (9), just pull the language out, with the understanding that we will be having other discussions about renewable energy certificates and credits and all sorts of things related to numerous issues. And then, and then this is, to make sure I understand, that that issue would be an individual consumer-by-consumer negotiation with each utility? How much of a burden, additional burden would that be?

MR. HINTON: Unknown.

MR. FUTRELL: There's certainly -- RECs are being sold by renewable generators in the state today and there are markets and there's verification, private verification groups that will ensure that RECs are being produced and that there are markets out there to establish value. So that's being done today. So it would take effort on the customer's part to go down that path, but that is being done today.

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CHAIRMAN EDGAR: Okay. And, Commissioner Skop, I

CHAIRMAN EDGAR: And I quess -- thank you, Mark. And, again, just, just for discussion, as I'm, you know, trying to understand all the ramifications for myself as well, if indeed the will of the body is to maybe pull that language out, and realizing that we have, you know, with the benefit of staff and all interested parties, additional discussion down the road, I can go that direction. But I guess I also want to raise that concern on my part anyway that we are -- in my mind I am and we are trying to promote the development and make it easier for the customer. And sometimes those negotiations can be, just because they are technical and all of that, it can be difficult to move that forward for those of us who never have

Commissioner Argenziano.

enough hours or enough time. So just, just a thought.

COMMISSIONER ARGENZIANO: Madam Chair, I kind of rethought that. And staff mentioned before that other states were doing it the way staff has recommended it here. understand the need for further discussion, but I'm afraid that that is the incentive to go forward and to keep things moving. So I may have taken a reverse position on bifurcating that out right now because I think that that's important to the customer and it's probably a hardship on the customer to get into those kind of negotiations. So I, I don't agree with the bifurcation at this time.

know you've been patient, so please jump in.

COMMISSIONER SKOP: Thank you, Madam Chair. And, again, to address Commissioner Argenziano's concerns as well as Commissioner McMurrian's, what I would advocate is merely on Attachment A, Page 34, striking Lines 17 through 22, which is Section (9) in its entirety. And my rationale for that, and I've come up with some additional rationale to address Chairman Edgar's concerns, is that again there are some issues I think that need to be resolved there to who has the appropriate property interest in the RECs.

Now in the case of the consumer, merely determining today that the RECs inure to the benefit of the consumer, I think it's a good thing in principle but not in practice. And my rationale for that is two-fold. First and foremost, to be able to certify the RECs, as staff has articulated in its staff recommendation, is going to require that the consumer absorb the cost of the second meter to track and certify the RECs. That cost will probably exceed the cost of the revenues that might be generated from the RECs. I don't have personal knowledge of that, but I suggest that the meter would be expensive. I haven't priced them lately, but that is a concern.

But moreover too, as Chairman Edgar raised, you know, I'm having problems envisioning that the consumer is going to be in a position to negotiate with a sophisticated party to

sell the RECs. I do think that there will be some sort of standard language where the utilities aggregate those and work something out there. But, again, you know, I don't know if it's a point of contention, but I would just merely advocate removing Section (9) on Page 34 from Lines 17 through 22 for the reasons articulated. And that's just my own personal view. And I do respect the will of the majority if we decide to go in a different direction. And, like I say, my only other concern, and I can just get that out there, would be -- because I know we wanted to make changes with specificity. I think I said that right but I always have trouble pronouncing that. But on Page 28 of Attachment A, Lines 3 and Lines 4, I would also reasonably propose that Tier 1 maybe be set at 14 kW or less and Tier 2 greater than 14 kW to address the concern of maybe perhaps bumping up the Tier 1 and facilitating the deployment of more distributed generation at the residential level. think that would be also a good thing in line with what Commissioner Argenziano raised about facilitating the adoption of distributed solar and such. Thank you.

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CHAIRMAN EDGAR: Okay. Commissioner Skop, for my benefit, the changes that you're suggesting, I want to make sure I've got it in the right place.

Page 28, Lines 3 and 4, and could you tell me again what the suggested change that you would like to put out there is?

COMMISSIONER SKOP: Yes, ma'am. For Line 3 on Page 1 28 of Attachment A, Tier 1 would be defined, it would strike 2 "10" and insert "14." And on Page 4 it would also -- I mean, 3 excuse me, on Page --4 CHAIRMAN EDGAR: Line 4? 5 COMMISSIONER SKOP: On Line 4, on Line 4 under Tier 2 6 it would also reflect striking "10" and inserting "14." So it 7 would read, the proposed revised language would be on Line 3, 8 "Tier 1, 14 kW or less," and on Line 4, "Tier 2, greater than 9 14 kW and less than or equal to 100 kW; or." 10 CHAIRMAN EDGAR: Okay. Thank you. 11 12 Commissioners. Commissioner Argenziano. COMMISSIONER ARGENZIANO: I'm in agreement with the 13 Page 28 suggestion but not with the Page 34. 14 CHAIRMAN EDGAR: Okay. And comments from 15 Commissioner Argenziano. 16 17 Commissioner Carter, did you have additional comment 18 as well? 19 COMMISSIONER CARTER: I was just going to make a 20 comment that on 28 that was different because what I'd heard the Chairman and Commissioner Argenziano were saying is that 21 22 this probably may not be the best time to bifurcate this. the recommendation to strike Section (9) -- I think that moving 23 24 forward there's plenty opportunities for any affected parties

to make their voices known, so I'm going to probably agree with

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the Chairman and Commissioner Argenziano that maybe we should leave that in there. I mean, I like on Page 28 those changes bumping it up to 14 kWs, but maybe we need to leave this in on Section (9) and go forward and see what shakes out from it.

CHAIRMAN EDGAR: Okay. And that's the language in Section (9) on Page 34, and you're saying that at this moment anyway you're more comfortable with the staff recommended language as it has been put before us.

MS. CLARK: Madam Chairman, if I could just -- CHAIRMAN EDGAR: Ms. Clark.

MS. CLARK: -- address a comment that you made with regard to the customers not being in a position to know about the RECs or negotiate. I think what you'll find is the customers will be engaging people who know about the incentives that are available, the possibility of the RECs. So it's not -- I don't think you'll have an unsophisticated customer. Or at least if you have an unsophisticated customer, he will have someone with him who will be able to help him in those negotiations. So I don't think that should be a concern and I'll leave it at that.

CHAIRMAN EDGAR: Okay. Thank you.

Commissioner Argenziano, did you have -- no?

COMMISSIONER ARGENZIANO: I'm still concerned.

CHAIRMAN EDGAR: Okay. Will you make sure that your mike is on? I want to make sure that -- thank you.

COMMISSIONER ARGENZIANO: You know, I'm just, I'm still with the same recommendation, leaving staff's recommendation at this time. And then it seems to me that down the road we can learn more and change things or --

MR. HINTON: Madam Chair?

CHAIRMAN EDGAR: Okay. Thank you.

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MR. HINTON: Right here.

CHAIRMAN EDGAR: Cayce.

I just wanted to make one comment about, MR. HINTON: because we talked about negotiations between the customers and the utility. And part of staff's intent in including this language, if you don't know who owns it, how are you going to negotiate for it? If both people are claiming it, what are you going to do with it? And that was just -- this would establish they belong to them, you guys go in and negotiate. How are you going to compensate? How are you going to purchase them? Staff even specifically mentioned negotiations for the sell of the RECs and possibly dealing with metering costs through that But staff's intent was just to establish the ground rules or the framework for negotiations to go forward. If the utilities are claiming it because of subsidies and the customer is claiming it because of the capital expenses they've put into it, then, then that's just a much muddier starting ground for negotiations from staff's perspective.

CHAIRMAN EDGAR: Thank you.

Commissioner Skop.

COMMISSIONER SKOP: Thank you, Madam Chair. Again, I'm trying to do some quick math to just kind of put this in perspective, and I do appreciate the, the various concerns expressed by my colleagues.

With respect to the renewable energy certificates, I'm just going to use the 10 kW example. If I had a 10 kW array, and noting that maybe there's eight hours of sunlight a day in Florida and assume 30 days in a month, that's 240 kilowatt hours, I think, that would be produced. I think I did my math, there are 2,400 kilowatt hours that would be produced in a month. And a REC is defined as 1,000 kilowatt hours of energy. So if you divide, you get 2.4. And essentially if you multiply it by -- I think some testimony I heard in a recent renewable workshop, that the cost of a voluntary REC is about \$4 for wind and solar. That's less than -- or 2.4 times the 4 -- hold on real quick. I'll do some math. I'm an engineer. I can't work without my calculator. Just under \$10 a month in terms of --

CHAIRMAN EDGAR: I thought you were a lawyer.

COMMISSIONER SKOP: I am, and a rocket scientist sometimes. (Laughter.) I wear different hats. I get confused. But, like I say, I think the amount --

CHAIRMAN EDGAR: No brain surgery, okay?

COMMISSIONER SKOP: No. No. That would be dangerous. As a matter of fact, sometimes I think I need a lobotomy, but, you know.

But, anyway, the subsidy that we're talking about, the value of the RECs is small for the smaller systems. For the larger systems, I think that they would be more valuable and that would be at the commercial aspect. And so that's something that certainly we can encourage. Again, I have mixed views on RECs in terms of the ownership interest. But I just kind of wanted to put that in perspective for the small residential unit, that the, the subsidy, assuming a \$4 cost of the voluntary REC is still under \$10. So, so, again, it's -- I just wanted to put it in perspective. It is incentive, but in terms of the cost it helps, but it's not a major cost driver, if you will. Thank you.

CHAIRMAN EDGAR: Thank you.

Commissioner Argenziano? Okay.

Yes, sir.

MR. TOTH: Bill Toth with All Source Energy. In regards to the sophistication of the customers, one of our biggest challenges is educating the customers on the various things that are out there available to them. They don't know unless someone like us who comes to these things is with them educating them on these. So the notion that a normal homeowner is going to be sophisticated enough to even know what a REC is,

much less negotiate its value, is a stretch at best.

The other thing I'd like to bring up is if you take a look at the cost of the overall system that the homeowner or the business is putting on their building as opposed to the cost for a meter, who's bearing the larger portion of the cost for that renewable energy? Certainly the person buying the system who's putting out eight, ten, 15, \$100,000 depending on the size of the system, and we're quibbling over a \$1,200 meter versus a \$10,000 system, and the \$1,200 meter owns the REC as opposed to the \$10,000 or \$100,000 system, that doesn't seem equitable to me. Thank you.

CHAIRMAN EDGAR: Thank you, sir. And, I'm sorry, I'm not sure I got your last name. Could you repeat it or spell it?

MR. TOTH: Bill Toth, T-O-T-H.

CHAIRMAN EDGAR: T-O-T-H. Thank you.

MS. GERVASI: And, Commissioners, Rosanne Gervasi.

Just for clarification, as I recall, there was discussion on

Page 34 of the proposed rule to remove some language on

Line 11. Well, that would be Line 11 on the new attachment

that was handed out. It's actually -- it's the language to

remove "for non-generating customers." And my recollection is

that everybody agreed that we could live with that change.

CHAIRMAN EDGAR: Rosanne, are you talking about the language in Paragraph H?

1 MS. GERVASI: Yes.

CHAIRMAN EDGAR: And we're almost there. Hang on because we're almost, I think anyway, we're almost there.

MS. GERVASI: Okay.

CHAIRMAN EDGAR: Okay. Commissioners, further discussion, and then maybe we can parse it down.

Commissioner McMurrian.

COMMISSIONER McMURRIAN: Thank you. I think this will be my last time on this topic. And in Mr. Toth's comments, I'm not sure it is equitable either. I understand the points you're making. I just, I really don't know what the right answer is now. That's my, that's my concern.

But as Commissioner Skop said, I will go along with the will of the Commission. And if we believe it's better to move this forward along now and include Section (9), then I can do that. I just do have ongoing concerns. And some of it, to be quite frank, is looking down the road, if we do have an RPS and we find ourselves in some way re-looking at this language, it seems like it may be very difficult to change it the other way. And I guess that's some of my concern is that to now award it to the customer and then down the road maybe there is some argument that perhaps the utility should receive at least some of them or some kind of different method, that it may be difficult to go back that way. And I guess that's some of the reason why I was thinking that it may be better to bifurcate

and consider that in the context of our future deliberations on renewables. But, again, I'm willing to go along with the will of the Commission, but that's, that's where my concerns are.

I don't want anything to be difficult for the customer. I do want to promote renewable generation, as the Legislature has laid out for us to do. But that's my concern and I just wanted to make sure everyone understood that. So I hope that's been helpful.

As to the change in the kilowatt, the 10 kilowatt to 14 kilowatt, I guess I have some concerns about that, and I haven't really heard from staff about what, what they believe that would do. Because I'm concerned about some of the costs and the subsidies, and I think that the 10 kilowatt is a good way to get started. And I know that staff decided not to go as far as the 25 kilowatt, and we heard good comments and from a lot of parties about why 25 kilowatts would work and would move it forward. I think there were also some good reasons not to quite go that far. I don't have as much concern about going to 14, but I do have some concern about moving off of something that seems to be a good dividing line that FERC has used and we have used in the past. Thank you.

CHAIRMAN EDGAR: Can we ask our staff to respond to some of those thoughts and questions?

MR. HINTON: Sure. Well, you know, like I said, 10 kilowatts is neat and I like neat. But I don't know if

going to 14 is going to have much impact. I really don't foresee it as being a problem.

CHAIRMAN EDGAR: And maybe I should know exactly what the difference is in practical purposes on the ground, on a roof, or between, say, 13 and 14, but I'm not sure that I do. So are you saying -- I don't want to put words in your mouth, but I guess my question is the difference from 10 to 14, with that do you see potential harm or problem or do you see potential benefit?

MR. HINTON: Well, I think you would be including potentially larger systems within the exemptions and incentives that are applied to Tier 1. So I, I think it would be of benefit to customers that may desire to install a larger system. If they've got -- you know, if it's a residential system with a very large roof or wants to install something over their pool or what have you, maybe they'll now have the ability to install four additional KW and still fall within the Tier 1 exemption.

CHAIRMAN EDGAR: I'm pretty sure my roof isn't that large, but.

Commissioner Skop.

COMMISSIONER SKOP: Thank you, Madam Chair. And just to touch upon Cayce's and Commissioner McMurrian's concerns and responses accordingly.

Again, my thought there was, again, if the goal of

Tier 1 is to facilitate the deployment of distributed renewable energy generation at the residential level, then I think it may be appropriate to tweak that up slightly to the extent that they avail themselves and not having to have the liability insurance for the larger array. And I think that promotes and that's consistent, I think, with legislative intent to promote deployment of renewables, particularly solar, in Florida. So I don't see a lot of harm, but I do see some benefits to the extent that I don't have to carry a million dollars of general liability insurance if I want to add 4 kW. So it's basically, you know, adding two additional 2 kW arrays, which is not a lot of space, it's some, but I do think that there's some incentive there.

With respect to the comment -- and, again, being on the far side I couldn't hear the, the gentleman at the end,

Mr. --

CHAIRMAN EDGAR: Toth.

COMMISSIONER SKOP: Toth? Okay. I guess your points that you made are extremely well-taken, and, again, it's -- I'm looking at some other issues, but it is a bit of a struggle to me because, again, typically the generator owns the RECs unless there is a PPA that assigns them to the power offtaker. So I am sympathetic there.

I guess two -- or one concern and then a question in response to what you posed. Assuming that the credits are

assigned to the individual customers, one of the problems I see perhaps is that you're going to need some sort of third-party aggregator or I see opportunity for third party aggregators to come in outside of the IOUs to try and collect those things from the various customers, which I think would add perhaps an additional level of cost that would have to ultimately be absorbed by the general body of ratepayers to the extent that if these RECs were collected and aggregated to meet a future, yet to be determined RPS type of thing, then having it -- at the customer level they do need to be aggregated somehow some way. And if a third party does that, there might be that additional level of cost, which, again, I think that maybe you could get into some equity issues to the extent that you're aggregating for a company to meet its RPS requirement and that's coming across but you're getting it from a few.

But I guess outside of that concern, and feel free to respond to that because I know that you feel, as I do, very passionate about renewables, but the question I have is, goes into the DSM type. Because, again, there are, there are subsidies that the utilities use to, to help subsidize the cost of the PV arrays and other things that may be encompassed within the DSM. And I'm not precluding it to or limiting it strictly to PV, but that's historically been, you know, something that's available under DSM and also incentivized at the state level with a rebate. So, again, just I'd like to

hear how you would -- I know you stated adamantly that the customer should own them, and I agree with that in principle.

But, again, I'm tempering it, and as Commissioner McMurrian has raised the issues about if it's coming out of DSM, then how do you address that issue? Because there is some subsidization issue. If the customer purchased it on a stand-alone basis, by all means the customer should own the RECs. Not a problem with that.

MR. TOTH: On DSM, could you tell me what that acronym means?

COMMISSIONER SKOP: I'm sorry, sir. It's demand-side management. So it's some of the conservation efforts that the utilities propose, and they're subject to the RIM test and other tests that come before the Commission, and we approve them as part of conservation measures. So typically under those programs, if you were a consumer and you bought a PV array for your home, like some of the discounts are substantial, I'm going to use GRUs because I can talk about them, but essentially I think that there was a huge subsidy where a cost of a \$30,000 array like between the federal tax incentives and some other incentives in the state and GRU incentives under their demand-side management programs brought that cost of the array almost to, from, say it was \$36,000, it would be like 16 or \$18,000 off of the purchase price or \$16,000 off the purchase price. Some of the things are very

substantial, so --

CHAIRMAN EDGAR: Commissioner Skop, I'm sorry, and I apologize because I try very hard not to interrupt. However, I have been advised that we need to take about a five-minute technical --

COMMISSIONER SKOP: I'm sorry.

CHAIRMAN EDGAR: No. That's okay. Technical break.

So I would ask everybody to bear with us because we're coming in for a landing very soon. Mr. Toth, please, please stay with us. And we will come back at five after by the clock on the wall. Thank you.

(Recess taken.)

Okay. We are going to get started again. Thank you all once again for your patience.

Okay. I have had -- we're going to finish the line that we were on, or at least come close to finishing it, and then I know there are a couple of people who would like to make a few additional brief comments. And I'm going to ask our staff to respond to a few things here in a minute as well. And then, Commissioners, just for planning purposes, my thinking is that maybe -- sometimes we wrap it all together, sometimes we take some things individually. In this instance it might work better, but we'll see, to take up the, maybe some suggested language changes kind of one by one and address them that way and see where that takes us. And I think with all of that we

can move forward here fairly quickly.

So, Commissioner Skop, thank you for letting me break in. I apologize. And you were posing some questions.

COMMISSIONER SKOP: Thank you, Madam Chair. And like I say, I just wanted to ask about the subsidies. My understanding on the subsidy level, and, again, this is part of the issue that I have, but they can be as high as \$5 a watt, so they can add up kind of quickly. And, again, I'm trying to refer to a GRU example I saw in the Gainesville Sun recently, but it was a very substantial subsidy. So at those levels when they come out of the ratepayer, body of ratepayers and such like that, and also the state, then I think that the property interests may become blurred. But I would ask you to briefly respond to that.

But also I do see your point, because as a developer I would want to own the RECs because I'd want to sell them.

And viewing, you know, viewing the consumer as a developer by, by wanting to facilitate the deployment of solar, I can easily see that point. And so if you could briefly respond, I would greatly appreciate it.

MR. TOTH: Okay. And thank you. Bill Toth again with All Source Energy. Basically you brought up two issues here, if I understand the question right. One is dealing with the rebates and so-called subsidies. The other one is dealing with the REC trading and oversight. Am I correct?

1 COMMISSIONER SKOP: Yes, sir.

MR. TOTH: Okay. Dealing with the rebates, I believe it's, for commercial in Florida the rebate is \$4 a watt up to \$100,000. For residential it's \$4 a watt up to \$20,000. Going back to one of the comments, that's why you find most of your residentials around 5 kilowatts. They max out their rebate.

The tax credit from the federal government is

30 percent with no maximum on it. And, yes, these are
incentives to produce solar or -- well, and these are solar.

Okay? These are solar rebates. I don't know what they are for some of the other ones. I know what they are for the solar.

And we always are going back and forth with the costs directly associated between the consumer and the utility.

There are some costs or subsidies that are overlooked or have been basically overlooked in our discussions in my opinion.

What -- by -- are you familiar with how the EPA promulgates its air regulations?

COMMISSIONER SKOP: Not exactly, sir.

MR. TOTH: Ten to the minus six, ten to the minus seven deaths. All right. They know they're going to kill one in a million, one in 10 million people by allowing this pollution to occur. By reducing that pollution through the clean energy, what's the reduction in medical costs? We know there's millions of asthma attacks caused every year by pollution. How much in Medicare and Medicaid is saved by

reducing these pollutants? That's an indirect cost savings to the public in both their personal medical costs and Medicare and Medicaid to the government. So that's a subsidy to the government that's kind of overlooked in these discussions.

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I was here when Charley came through and I know there were houses a few blocks from me that didn't have power for weeks. It wasn't because their house was destroyed, it was because the grid system or the generator of the utility was down. Had they had these distributed on-site generation, how many of those people would have been able to stay in their homes as far as increased disaster capability? How much is this worth? In promoting some of these things, they're promoting other types of activities that benefit in a financial way to the community at large, to the ratepayers in person. You know, having a geographically dispersed energy production system, what does that do for increased national security and increased energy security from terrorist attacks? On I think it was Page 39 they talk about lost revenues from the solar. Well, that kind of translates directly to reduced transmission cost, doesn't it? If they're not having to produce that energy, if they don't have those customers, isn't that the amount being saved in transmission costs also? Isn't that a factor in this?

And in regard to some of the other technologies out there like biomass, if we don't turn that biomass into methane

and fertilizer, we're going to put it in a landfill. We've only got so much of that. We're turning something that is a waste into something that's energy and then a product, a fertilizer. What does that do for the community at large? How much is that worth? How much are all of these benefits that the ratepayers and the public at large receiving from all of these other positive attributes that aren't directly related to the financial situation between the utility and the customer? Okay? All of these things are being overlooked.

So I think there are many positive attributes to this as far as rebates and subsidies go. I think the subsidies, if we take a look at them and put a financial on some of these things, especially dealing with the medical costs, might be offsetting each other.

The other one dealing with direct trading and oversight. If you take a look at the comments at the last one, I am the one who made the last comment that we should not be shortsighted in this and should take a long-term approach to solving these problems. You're assuming that a third party system is going to be paid for by the ratepayers. That doesn't necessarily have to be that way. We're in the process of developing the RPS now. I've been involved in the workshops. However we decide to do that or however you decide to do that based on comments, however it works out, it doesn't necessarily have to be a cost to the utility or to the ratepayers.

The, the program itself, the REC program part of the, you know, it doesn't cost -- in the stock market, the stock market doesn't cost people outside of the market. The traders make their money off the trade. There are other models out there that we possibly could be looking at as opposed to the utilities and the ratepayers bearing all this expense.

COMMISSIONER SKOP: Thank you, sir. And if I could just stop you there. Again, I do believe that all your points are well-taken. And, again, as a developer of a project, and I've been in that capacity, I actually would want to own the RECs because I would want to sell them to support my project. So, again, viewing the consumer as a developer, your point is exactly well-taken.

Again, just some of the concerns that I have that I 've expressed I won't go back into. But, nevertheless, in an effort to promote compromise, you know, certainly I'm willing to respect the majority viewpoint of my colleagues and would respectfully at this point just withdraw my support of the proposal to remove Section (9). I think that will promote some compromise and move us into landing. Thank you.

CHAIRMAN EDGAR: Thank you, Commissioner Skop. Thank you, Mr. Toth.

Okay. I think we have a few people who would like to make just a couple of additional comments, and then we'll take some motions and see if we can get some agreement.

Mr. Krasowski.

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MR. KRASOWSKI: Thank you. My list of comments gets smaller because I wanted to comment on Paragraph 9, Page 34, but it's not necessary, I believe, now. Well, maybe just a little.

CHAIRMAN EDGAR: I was going to say, I don't know that we know that yet, but.

MR. KRASOWSKI: Yeah. What am I saying? No. FP&L's representative here has so eloquently expressed their position. I'm a ratepayer. Okay? Now if I hadn't taken a specific interest in these proceedings, in this issue, I don't think I'd be very well-equipped to negotiate anything with an FP&L representative. So I think you should make it pretty solid that these certificates, renewable energy certificates go to the customer. And even if they don't represent a lot of money, I think it's a great addition to the promotion of the renewable energies that people like Mr. Toth and others in the industry could use to help us get to clean energy. So that's the one thing.

The other thing is Mr. Skop's comment earlier about tweaking the Tier 1 up to 16 or 18. He referred to, I believe -- maybe I misunderstood, but I think he was talking about a certain water heater or PV system that worked at 18 best. But, anyway, I originally support maximizing whatever we can do to, to accommodate these clean energies, so I would

certainly suggest to go along with that.

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And another comment that was made at that time was that some of these larger homeowners with more money might be able to afford something bigger. Let's make this fashionable, if we have to. You know, if it's cool and neat to have -- whoever has the biggest PV, let them have the biggest PV. You know how that works in other things. You know, better to have a bigger PV than a bigger Hummer. Right? So that's -- you know, I'd just like to certainly encourage going along with that position. So thank you again.

CHAIRMAN EDGAR: Thank you, Mr. Krasowski.

And Mr. Keyes.

MR. KEYES: Thank you.

CHAIRMAN EDGAR: You're welcome.

MR. KEYES: Just a few points. I want to concur that moving the Tier 1 up to 20 or 25 kW makes more sense to me.

That's what some other states have done. I haven't heard of anything between, going up to between 10 and 20. And also I just like neat like Mr. Hinton does.

But I would hope that you would, you could vote on whether or not we should have insurance for Tier 2. I brought up insurance before. And the question was raised before whether there had ever been any damage or injury caused by solar energy systems. And to my knowledge it's not just in the United States there hasn't been any damage or injury; I've not

heard of any problems in Germany, which has half the solar in the world, or Spain or anywhere else. So it seems to be extremely low risk. So I would ask that on, in Section (5)(e) on Page 30, it's Lines 13 and 14, we would delete "no more than \$1 million for Tier 2, and" --

CHAIRMAN EDGAR: I'm sorry, Mr. Keyes. I need you to tell me the place again.

MR. KEYES: Sure. It's Section (5)(e), which is on Page 30.

CHAIRMAN EDGAR: Page 30? Okay. Hold on.

MR. KEYES: Sorry about that.

CHAIRMAN EDGAR: Okay.

MR. KEYES: On Line 13 and 14 it would just be a matter of deleting the phrase "no more than \$1 million for Tier 2, and." And then on Line 15 adding "or Tier 2" after where it says, "Tier 1," say, "or Tier 2." And if this was done, I think it would address much of what Commissioner Skop is suggesting, that for the larger systems, larger even residential systems, one of the biggest barriers there is insurance. And so if we just eliminate the insurance requirement for Tier 2, then we've gotten past that.

Moving to the next subject just very briefly on RECs,

I'd just like to point out that they represent -- the idea of

RECs is they represent the environmental attributes of the

asset. Some people refer to it as the bragging rights. And

there's a voluntary market out there because people like to buy these things and be green. Well, the people who actually own the systems like to be green too. So lots of them don't want to give up their RECs. So it would seem confounded to make a law that says -- that doesn't make it clear that they get to keep them. So I'd encourage you to keep them, and it sounds like you're leaning that way.

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A comment on the roll-over of the kilowatt hours from one month to the next, there's been some discussion about that. Just one point I want to make out, make there is that if you have payments from the utility to the customer, potentially that's taxable income, and that adds a layer of complexity that you really, that you avoid completely by just having it roll over from one month to the next. So the IRS has looked at that and said, no, it's not, getting kilowatt hours of credit that you get to use the next month isn't taxable income, but it raises the possibility that it could be taxable income.

And finally on the manual disconnect switch, there's been some talk about, well, the utility could still require it but you could rate base it. And I would just caution there that there ought to be some showing of necessity and that that was a prudent investment on the utility's part. In practice, the utilities that have lots and lots of solar systems have discovered that their linemen don't go out and use the switches ever. And part of that is because there aren't systems in

place that show a map of where all the systems are and the linemen don't have a list of where all the systems are and where they go to turn them off. And in practice also, the linemen know that the far greater danger than any solar system is the plug-in generators, the Honda generators that you can just plug into your outlets. And so given that risk, they're already taking precautions to make sure that they're safe and so they don't worry too much about the solar systems. So if they do want to require for disconnect switches, I suggest that in any proceeding, any rate case that they need to be able to show that they've mapped them and they've shared that information with the linemen and they've got procedures in place that the linemen actually use the systems so it's not just a wasted effort. That's it. Thank you.

CHAIRMAN EDGAR: Thank you, Mr. Keyes.

Yes, sir. Welcome back.

MR. GALLAGHER: Can you hear me okay? My name is
Bill Gallagher with the Florida Solar Energy Industries
Association. And just a couple of points, pretty much really
what Jason has said. But when I was looking at the notes, I am
probably one of the 98 people in the FPL area that have a PV
system, electric system. And I think I had mentioned this
before, that I absolutely love it. When I first put the system
in the meter spun backwards, and that's a thrill. If you don't
have it, I highly suggest it. But shortly thereafter the meter

was removed and I was compensated at what I feel to be a very unfair rate. And I want to thank the Commissioners and staff for bringing us to this point where it looks like we're going, we're going to finally be able to get net metering. It's really, it's a step forward, and we appreciate it.

Commissioner Skop's idea about increasing the kW, I think, I think that's great. I know he said 14 and I know that Bob said 18, so I'll say 20; whatever, whatever you can get it up to. I think it's a great idea because this is what motivates people to make the investment and this is what we want to do. We want people to go renewable.

As far as the RECs, the RECs absolutely should go to the energy provider. I had someone come in my office this week coincidentally and they invested in a PV system for their home in Ormond Beach principally because their relative bought one in New Jersey. And part of the conversation was, "And also they get this money, they sell these RECs." This guy was absolutely excited. I mean, I get pretty excited, but this guy was, like, really excited. So there's a first-hand experience that does make a difference. And I think there was some talk about, oh, it's maybe \$15 a month. Well, that's not probably a lot to a utility company, but it is a lot to the homeowners that are investing 15, \$20,000 in these systems. So we'd definitely like to see the RECs go to them.

Another thing was the potential cost to, to meter,

you know, the watts for the RECs, and a lot of these inverters really do that for you. I mean, you can actually go online, excuse me, and see how many watts your system is producing. So I don't think that's going to be a, you know, a big, a big thing.

And then probably the last thing is just the end of the year we feel that, you know, the energy producers should be compensated at retail rates. I mean, you know, if you think about it, when we're making this energy, if we're not using it, it's being sent to, to our neighbor. We're actually powering our neighbor's house. So I don't see any reason why we can't be compensated at the end of the year for a retail rate as opposed to an adjusted rate. That's my comments. Thank you.

CHAIRMAN EDGAR: Thank you.

And I want to make sure that, that I've covered everybody. So, Mr. Hansen --

MR. HANSEN: I thought Mark Futrell was going to tell me his conclusion.

CHAIRMAN EDGAR: Okay. And I think Mark is prepared to give us some comments on the comments that you had made earlier, so let's go there. Mark.

MR. FUTRELL: All right. We have addressed the written comments that we've received, except for Mr. Hansen.

And specifically the end of Mr. Hansen's handout, Page 3, he is suggesting a revision to staff's proposed language. If you go

to Page, Page 33 of the staff recommendation, Line 23, 1 2 beginning with "At the end of," he would rewrite that sentence to read --3 CHAIRMAN EDGAR: Mark --4 MR. FUTRELL: I'm sorry. 5 6 CHAIRMAN EDGAR: Tell me, I'm sorry, where --MR. FUTRELL: Page 33 of the staff recommendation. 7 CHAIRMAN EDGAR: Page 33. And where -- because I'm 8 9 seeing Page 34. So I guess I'm looking at the wrong place. 10 MR. FUTRELL: Right. I'm going to read the -- he's suggested a change. 11 12 CHAIRMAN EDGAR: Oh, okay. Go ahead. Thank you. 13 MR. FUTRELL: I was just going to reread the sentence as amended, as he would amend it just to give some context to 14 it. 15 CHAIRMAN EDGAR: Okay. Thank you. 16 MR. FUTRELL: And so he would rewrite the sentence 17 beginning on Page 33 of the staff recommendation beginning at 18 Line 23, and his language would be, "At the end of each 19 calendar year the investor-owned utility shall pay the customer 20 for any unused energy credits at an average annual rate based 21 on the investor-owned utility's normal retail rate for Tier 1, 22 and pay Tier 2 and 3 at COG-1 as-available energy tariff." 23

customers the retail rate at the end of the year for any unused

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So the effect of this would be to pay the Tier 1

credits. Staff is recommending that all customers be paid for any unused credit at the as-available energy rate. Again, this is another example of where the staff has tried to strike a balance of recognizing the need for net metering which is the month-to-month crediting of excess generation. At the end of the year we've sided on paying the customer but paying them for, at the as-available energy rate. Many states approach this differently. Some forgive the credits and just it goes back to zero in many cases, some states continue to roll over credits in perpetuity, and some pay the as-available energy rate. We felt like this was a fair compromise to recognize the value there, but, again, not get into some of the, open up some more of the subsidization issues that going to full retail would, would open. And we would recommend that staff's language as written in the recommendation be maintained.

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CHAIRMAN EDGAR: Thank you, Mark.

Mr. Hansen, do you have additional comment?

MR. HANSEN: A distressful one. On the very first page of your document it talks about the regulatory policy, and it said that the rate at -- do not exceed avoided costs. And I asked the question if it was possible for the Public Service Commission to change this and make it retail rate across the board. In other words, is there a higher authority or a higher rule or whatever it is, you know, George Bush or whatever, that prevents you from doing this? Because the logic is this: If I

have a system, for example, that generates 10 kW and I use 10 kW, I'm offsetting one for one. Now if I want to conserve more energy, okay, and I put a solar hot water heating system in, I can reduce that to about 7 or 6 kW. But what happens when I do that? I provide the utility with another 3 kW that I can only recover 40 percent. They make 150 percent on my new energy conservation. And when you look at this and you play it on the board, there's no incentive for the small person because -- the small utility to conserve energy. Once you put your system in, if you start conserving energy, you actually are producing more energy and more money to the utility. That's what it boils down to. So it's very disappointing. I've gone through this a couple of times in the other meetings, but I never have been able to look at what the utilities say that this costs. They say if we pay retail rates to Tier 1 people, that's going to boost the ratepayers' bill up, and that just is not true.

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I went through the Florida Power & Light, FPL, their costs, what they projected for the next five years, and they only say that there's going to be about, maybe about 1,000 residents that are going to be participating. And when you divide this stuff up by 40 million customers, you come out to less than a penny per month cost. So I can't understand why the PSC would recommend not paying us retail. I just can't understand it. Maybe you could shed some light on it for me.

CHAIRMAN EDGAR: Mark, can you speak to the higher power and other related issues?

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MR. FUTRELL: Certainly. In many of these subsidization issues you've heard, and I think staff has commented that the effects would be felt in future rate cases, metering, those kind of disconnect switches, those kind of things would be felt in future rate cases and accounted for there.

In this instance when there's these annual credits paid, that's real dollars coming out of customers at this time so that the difference between paying the as-available energy rate, which could range anywhere from 5 to 8 cents per kilowatt hours, versus the retail rates, which depending upon the utility could be anywhere from 10 to 15 cents per kilowatt hour, that differential is going to be paid for by customers immediately. That's a real impact that will be felt immediately. And so that's a balance you have to try to decide what's the best way to navigate through this is what additional benefits are you going to get from that? Again, we feel like the main benefit of these systems is to offset consumption and not turn these into little, to generators and to help them offset their consumption on a monthly basis. And then if there's any credits left over, we feel like the as-available is a fair compensation. It certainly isn't as high as retail, full retail, but we feel like it's a fair level to be at to

help protect the balance of the, excuse me, the balance of ratepayers.

CHAIRMAN EDGAR: Thank you, Mark.

And, again, just to restate again the obvious, much of what we are doing with this, as with many other things, is trying to find the balance, the appropriate balance, some with full and complete information and sometimes not full and complete, but trying to do the best we can.

Commissioners, I think that we're probably at about that point where we can maybe look at some specific language. I guess my thinking is that maybe if we take some suggested language changes and we can go ahead and have motions and vote and see where those go, and then take up the rule at the end might make the most sense. Do I see some nods? I'm open to suggestions. So let's try it that way and see how it works. And I know staff will keep track and let me know if I miss anything.

Okay. I'm going to suggest that we maybe take the easier one first, and so my suggestion is that we take up on Page 34. Page 34 has had a lot of discussion, but the Subsection (h), we had discussion which addresses the standby charges and we've had discussion and I think perhaps consensus but let's see, about adding language that had been suggested by the staff, Line 8, the shaded language for the maximum measured demand during the billing period. Then coming down to

Line 11 and deleting "for non-generating customers." And then 1 2 down through Line 15, ending at the period and then adding "the customer." And that was read into the record earlier. 3 Commissioners, any, any questions? Is that a comma 4 5 or is that a period? It's a comma. Thank you. COMMISSIONER CARTER: It's a comma. 6 7 CHAIRMAN EDGAR: And Commissioner McMurrian is 8 helping me keep track of the commas too. (Laughter.) Are we clear? Nods, I'm seeing nods. Okay. 9 Commissioners, is there a motion to make this 10 suggested language change to the proposed item? 11 COMMISSIONER CARTER: So move. 12 COMMISSIONER SKOP: Second. 13 CHAIRMAN EDGAR: Okay. Is there further discussion 14 15 or question? Seeing none, all in favor, say aye. (Unanimous affirmative vote.) 16 Opposed? Okay. We will show that language change 17 made. 18 19 Okay. Then that brings, as I'm keeping track, and, 20 again, if I miss something, we will certainly take it up, but also on Page 34 we have had discussion about Subsection (9), 21 which is Lines 17 through 22, the renewable energy certificates 22 section. We've had some discussion about whether that should 23

remain as proposed or whether it should be removed. Is there a

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motion?

COMMISSIONER CARTER: Madam Chairman, I move that the 1 language delineated in Section (9) on 34 beginning at Line 17 2 through 22 remain in the document. 3 CHAIRMAN EDGAR: Thank you. Is there a second? 4 COMMISSIONER ARGENZIANO: Second. 5 CHAIRMAN EDGAR: And there is a second. Is there 6 discussion? Seeing no discussion, okay, all in favor, say aye. 7 (Unanimous affirmative vote.) 8 Opposed? Show it adopted. And that language will 9 remain as was in the original proposal that came before us in 10 11 this item. 12 Okay. Then we have also had some suggested language 13 changes on Page 28, which addresses the threshold for the 14 Tier 1 delineation between Tier 1 and Tier 2. Let me get there. Okay. Is there a motion on the Tier 1, Tier 2 15 16 language? No? 17 COMMISSIONER CARTER: So move to Line 3, Tier 1, to strike "10 kW" to "14 kW." Line 4, Tier 2, strike "10 kW" to 18 "14 kW." 19 20 CHAIRMAN EDGAR: Okay. There is a motion, and is there a second or a question? 21 COMMISSIONER SKOP: Second. 22 CHAIRMAN EDGAR: Okay. There is a motion and there 23 is a second. Discussion, and which I'll begin while I can. 24 (Laughter.) 25

I would just like to say I, I hope I have shown and I 1 hope I've made it clear that I am really, really, 2 pleased about the direction that we're going. I've spent a lot 3 of time, each of us has spent a lot of time on the net metering 4 issue and trying to think it through. I think it's an 5 6 important step forward, and I'm very, very pleased that hopefully we'll be able to propose some rule language here in a 7 minute. I'm just not sure in my own mind about the impact from 8 going from 10 to 14, so I probably am going to fall on this 9 10 point with the more, in my mind, cautious approach and the more known. We deal with 10, our staff has more information about 11 10, we have more experience about 10 as a threshold. It is 12 something that we can point to in some other rules both by this 13 agency and other agencies. So I'm probably going to stick with 14 10, but I don't want that ever to be interpreted as a lack of 15 support because I'm very pleased with the direction that we're 16 17 heading. Is there further discussion? Commissioner McMurrian. 18 19

Is there further discussion? Commissioner McMurrian.

COMMISSIONER CARTER: Madam Chair, before, if I may,
before we begin our discussion on the motion, would it be
proper for us to listen to staff on this? I obviously wanted
to put it in the posture for us to discuss it, but I would like
to hear staff's take on it before we engage in our discussion
on that, if that's proper.

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CHAIRMAN EDGAR: Okay. If I may, just because I know

Commissioner McMurrian was waiting, I've already jumped ahead of her once. So, Commissioner, if you would have some comments, please feel free. And then absolutely we will look to staff and have opportunity for more discussion.

Commissioner.

it's along that same line in that I think we've heard a little bit from them about the 10 versus the 14 and the 25 earlier. But I did have a question about the statement of estimated regulatory costs, I believe that's the right acronym, because I believe the information that's been provided by the parties that would be affected with respect to the data requests and all would be based on the 10-kilowatt level. And so I wanted to know how much leeway do we even have with respect to that? Would you -- I mean, frankly, if we were to go down the road to 14, legally would you have to redo the whole SERC process? And I want to move forward.

MR. HEWITT: Commissioner, some estimated costs for metering costs, Tier 1 was \$55, Tier 2 was \$170. Some of those Tier 2 costs might move it into the Tier 1 cost because you're moving a larger size customer into the Tier 1, so those costs could go up. And also the negative impact on the net metering price would go up in the Tier 1 category approximately one cent, a little over one cent per kilowatt hour. And the net effect depends on the number of customers and, of course, the

usage.

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CHAIRMAN EDGAR: Commissioner McMurrian.

COMMISSIONER McMURRIAN: Thank you. I'm not comfortable at this point agreeing with the 14 kilowatt, and for the same, with the same kind of discussion that Chairman Edgar explained. I don't want it to be said that I'm not supportive of this moving forward. I do have some concerns about the cost, and I guess I'm not comfortable at this point going to 14 or 25 or 12. I just feel comfortable with 10. And then we've got the information based on the 10-kilowatt cutoff. And for me, I just feel comfortable going there. I think that in the same, with the same discussion about the other Section (9), I think that we can agree to move forward and have the customer on those credits. And with respect to this, I would feel more comfortable sort of leaving it at 10 and moving forward, and then we can always revisit at some future point if we see that we're not providing enough incentive for renewable generation in Florida.

CHAIRMAN EDGAR: Thank you.

Commissioner Argenziano.

COMMISSIONER ARGENZIANO: I thought staff before when asked said it would be a very negligible difference. Am I correct?

MR. HINTON: I did say that, but I wasn't looking at the SERC when I said that, so I'll defer to his analysis.

MR. HEWITT: Commissioner, Craig Hewitt. To put it in perspective, FP&L now has, they said they have 98 residential customers and six small commercial customers out of their whole system. So it's small now. This might grow, of course, over time, and it depends on how fast and how many would be -- whether it's significant or not.

COMMISSIONER ARGENZIANO: So I guess as of right now 10 to 14 really doesn't make a big difference, but it could in the future.

MR. HEWITT: That's correct. But you'd have to be talking not hundreds but maybe thousands to really add up.

COMMISSIONER ARGENZIANO: Thousands. Okay.

CHAIRMAN EDGAR: Commissioner Carter.

COMMISSIONER CARTER: Thank you, Madam Chairman. I want us to at least be able to have this discussion because I think, as Commissioner Argenziano said, at the time it seemed like a, kind of a throw-away line. But now that we're in that and looking at what our financial analysis is based upon, you know, if all of the, the data, the financial data and the estimates are based upon 10 kW in Tier 1 and picking up plus, 10 kW plus in Tier 2, I mean, I want to move forward but I want to move forward based upon the reasons. So if that's what our analysis is based upon, then I'm less likely to --

CHAIRMAN EDGAR: Commissioner Argenziano.

COMMISSIONER ARGENZIANO: That's what I was trying to

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get to. Right now, even though the analysis indicates that right now with the current customers it is negligible or such a small difference so it wouldn't make a difference -- the only time it would make a difference is if there were thousands of more customers who came --

MR. HEWITT: Commissioner, let me add, FPL estimated that if they had 200 additional customers the first year, it would be another \$108,641 cost. And it goes up from there as they add more customers, 200 each year. The next year would be \$214,000 and then on up. And so the total over five years they estimated with 200 new customers every year would be \$1.6 million for that five-year period.

COMMISSIONER ARGENZIANO: Over five years. Okay.

CHAIRMAN EDGAR: Okay. I guess in my mind -- and, you know, there's so much that we've been able, I think able to reach consensus on. I don't want to be overly tripped up about one, you know, one piece, although it's an important piece absolutely as part of the framework for the rule. The tier thresholds are part of the framework for the overall proposed language. And I guess I'm, again, just more comfortable that, that we have language and we have some harder data, for lack of a better term, on the 10. And I would love to say that with this rule that there will be thousands and thousands of new residential and small commercial consumers that take advantage of it. Nothing would thrill me more. I doubt that that's the

case. We're moving forward as we can. But in my mind it's just, it's just a more known and it is, again, more consistent with some of, some of the other framework rules and requirements that we have. So I guess that's kind of where I am. But it's, it's, you know, sometimes a number is a tad arbitrary, although I hate to say that either.

Commissioner Skop.

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COMMISSIONER SKOP: Thank you, Madam Chair. And, again, I think that we've heard some testimony from some of the stakeholders today that would suggest increasing the Tier 1. And, again, you know, I'm looking at that as we want -- our policy as articulated not only by the Governor's executive orders but also by the legislative body of this state is to encourage the adoption of renewables. And, you know, frankly, I think that that would encourage homeowners, including those that are more affluent, to embrace PV solar. Again, the -- in response to Mr. Krasowski's comment, the comment I was making was the PV solar array in the parking lot of the PSC. And, again, that's 18 kW. The reason I made that analogy is for the basis of size comparison to show what is possible should there be the removal of the barrier of the cap of Tier 1, and that moving upward slightly without the requirement of having to carry \$1 million of general liability insurance as, I think, one of the other representatives pointed out.

So with respect to the cost impact, which, again, I

don't seem to have the same data, but maybe I do, you know, one could easily make the argument, are those cost figures accurate, are they overinflated or what have you? But at the end of the day the cost drivers for the additional 4 kV of installed solar that I'm kind of recommending on the tier would be simply the energy delivery cost and the cost of the RECs to purchase them. If they're assigned to the consumer and the consumer decides to keep them, so be it. If they sell them, that's a taxable event is another good point that's been brought out, which further reduces the value of the RECs.

But at the end of the day, again, it's a policy concern. And I think that moving forward with the higher cap tier is in alignment with some of the comments we had here. It's not as aggressive as some people have advocated for. It's more conservative consistent with staff. And I don't think there's a large impact to the utility. But, again, some of the Tier 2 costs that are spilling in and based on the economic analysis that I just heard, looking at the Tier 2 costs, they're substantially higher than Tier 1, but, again, you know, Tier 1 goes up to 100 kW. That's one of the Kenetech 56-100 machines I used to manage in Altamont Pass.

So, again, is it fair to burden 4 kW at Tier 2 and include that as a cost for why you shouldn't raise a Tier 1 cap? And I'm just frankly in disagreement with that. But, you know, I will respect the will of the majority of the

Commission. And if we choose not to amend it to 14, so be it.

But, again, I would advocate strongly, consistent with the

Governor's executive orders and the legislative policy of this

state, to do so to encourage the goal. Because, again, as I

previously articulated and I'd like to say it again for the

record, if I could get to it, if the goal of Tier 1 is to

facilitate the deployment of distributed renewable energy

generation at the residential level, then it may be appropriate

in my mind to increase the Tier 1 cap slightly. Thank you.

CHAIRMAN EDGAR: Commissioner Skop, where does the Governor's executive orders address whether the Tier 1 cap should be 14 or 10?

COMMISSIONER SKOP: Madam Chair, it doesn't. But my recollection is the language has emphasis on wind and solar, and this would facilitate the addition of solar at the residential level of distributed generation, which there's been a lot of talk that that would be beneficial to the state, not only for reducing transmission congestion, but there would be other tangible benefits. So, again, I'm just making it merely as a recommendation, and if it's adopted, so be it. If not, I gave it my best effort. Thank you.

CHAIRMAN EDGAR: Commissioners, further discussion?

Commissioner Carter.

COMMISSIONER CARTER: For a question, Madam Chairman?
CHAIRMAN EDGAR: Absolutely.

COMMISSIONER CARTER: You did -- excuse me. 1 staff, you did the numbers in reference to what it would cost 2 at 10 kV, correct, over five years? 3 MR. HEWITT: Commissioner, I reported what FP&L 4 estimated. 5 COMMISSIONER CARTER: Which is part of a document, 6 and obviously we have to go on what's before us; right? And 7 what's that cost? 8 MR. HEWITT: If FP&L added 200 residential customers 9 per year, over five years it would be \$1.6 million in lost 10 11 revenues. Now let me add, that doesn't say anything about what it would cost the company to implement the whole process. 12 of course, that's, you know, part of the, part of the process. 13 COMMISSIONER CARTER: Madam Chairman, permission for 14 a follow-up. 15 CHAIRMAN EDGAR: Commissioner Carter, yes. 16 COMMISSIONER CARTER: Okay. So add another 4 kV. 17 Can you do the math for that? 18 MR. HEWITT: I could not because I'm not sure what 19 the costs were that were behind these figures of Tier 1 and 20 Tier 2. And apparently as you get into a larger size you have 21 more expensive metering equipment from what I, what they 22 reported, and so that drives up the cost of those customers 23 that moved to Tier 1. They still have to have the larger 24

metering size, for instance. So there's no way to come up with

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a definite answer with the information we have. 1 COMMISSIONER CARTER: Madam Chairman, I'm just kind 2 of thinking out loud. 3 CHAIRMAN EDGAR: Commissioner. 4 COMMISSIONER CARTER: I was really trying to get my 5 head around what that number would be. Not that I distrust 6 Commissioner Skop's calculator, but I don't know, I don't 7 know what -- maybe -- is there --8 COMMISSIONER SKOP: Madam Chair. 9 CHAIRMAN EDGAR: Commissioner Skop. 10 COMMISSIONER SKOP: Thank you, Madam Chair. Just in 11 light of moving this forward, again, we do have another item on 12 the agenda, I would just simply at this point move staff's 13 recommendation as we have adopted and just go with that so we 14 can bring this to closure. Thank you. 15 CHAIRMAN EDGAR: Well, we have a motion and a second 16 on the, on the -- before us, so I don't know, I don't know that 17 we are in that particular posture, Commissioner Skop, although 18 I appreciate your effort to try to move us along. 19 Commissioner Carter, your motion. Is there further 20 discussion or do you want to call it up or down? Actually I'll 21 22 call it up or down, but. COMMISSIONER CARTER: Commissioner Argenziano --23

CHAIRMAN EDGAR: Commissioner -- I'm sorry,

Commissioner Argenziano. Did you have further comment?

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much stick with the 14.

COMMISSIONER ARGENZIANO: Well, I don't -- without having any numbers or knowing if there would be a larger meter needed or anything, it's hard for me to say that jumping from a 10 to a 14 is going to be so detrimental. I don't, I don't think so. I think the incentive is there and people have expressed their concerns about that. So without having anything that tells me this is a certain number, this is what will happen if you go from 10 to 14, then I'm going to pretty

CHAIRMAN EDGAR: Commissioners, further discussion?

Commissioner McMurrian.

with Commissioner Argenziano. I don't know what will happen either. I'm not convinced that going from 10 to 14 is necessarily going to be detrimental. I guess my thought is I just don't know. And similar to some other discussions we've had, I guess I feel like with the way we set out the SERC process and things, we've got something before us where the affected utilities and other affected parties, there's an analysis on what data they've given us and that's all I have before me now. I appreciate Mr. Hewitt trying to sort of do a back of the envelope, here's how the numbers would go, but I don't know exactly how much they would be. And I guess we don't really delve into this SERC information unless we were in a hearing posture anyway. So I agree that we can't necessarily

hang our hat on the numbers we have before us. Those haven't all been tested. But it is what we have and it is what the parties were put on notice to give us feedback on based on the 10 kilowatts. So I guess I'm just uncomfortable at this point, you know, having, having no information about what would happen at 14 kilowatts. But I do agree with you, Commissioner Argenziano, I don't think that we're going to see gloom and doom if we had a 14 kilowatt limit in there either. I just feel comfortable staying with the 10 and moving it forward at this point.

CHAIRMAN EDGAR: Thank you. And as I said, I'm hoping that many will take advantage of, of the framework that it will be in hopefully in the proposed rule and hopefully we'll see lots and lots. I don't know that to be the case, but I sure hope so.

Okay. Commissioners, further discussion.

Commissioner Carter.

COMMISSIONER CARTER: Madam Chairman, I made the motion because I wanted us to get into a point of discussion on this. And then, of course, I don't know if I know anymore now than I did before. (Laughter.) I think I'm probably more confused now.

CHAIRMAN EDGAR: Just hungrier.

COMMISSIONER CARTER: Yes. My stomach's growling.

But, I mean, I guess I may be in the posture of

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voting against my own motion because I'm not really sure that 1 I've heard anything convincing, but I did want to put it out 2 there so we can, as a body can discuss it and have that. 3 know that may sound like a, what is it, Robert's Rules of Order 4 gone schizophrenic, but, you know, it's probably happened 5 6 before. 7 CHAIRMAN EDGAR: Probably. Okay. Commissioners, further, further discussion? 8 Okay. We had a motion, we had a second. We've had full and 9 varied discussion, which I always appreciate, and we are 10 addressing a potential language change on Page 28. All in 11 favor of the motion, which is to change the language, say aye. 12 COMMISSIONER SKOP: Aye. 13 CHAIRMAN EDGAR: Opposed? 14 COMMISSIONER CARTER: Nay. 15 CHAIRMAN EDGAR: Aye -- aye, nay, aye? 16 17 COMMISSIONER ARGENZIANO: What you're doing is backwards. 18 CHAIRMAN EDGAR: Okay. Well, then let's just, let's 19 just try again because I want to make sure that everybody is 20 very, very comfortable. So we'll do a do-over. (Laughter.) 21 22 All in favor of the motion to change the language on 23 Page 28, say aye. 24 COMMISSIONER SKOP: Aye.

COMMISSIONER ARGENZIANO: Aye.

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CHAIRMAN EDGAR: Okay. All opposed to changing the language, which would be to leave it as it is in the staff proposal, say aye. Aye.

COMMISSIONER CARTER: Aye.

COMMISSIONER McMURRIAN: Aye.

CHAIRMAN EDGAR: Okay. I call that as motion fails.

Okay. All right. Thank you all for your participation and cooperation. Okay. Those are the suggested language changes that I had taken down that I thought we had had a lot of discussion about, and so it seemed to me like that would be a good place to start. Are there, Commissioners, other questions, other discussion, other suggested changes that anybody would like to raise on the bench?

COMMISSIONER CARTER: Madam Chairman, if I may.

CHAIRMAN EDGAR: Commissioner Carter.

COMMISSIONER CARTER: I think that we've gone through an exhaustive process, we've had feedback and input from all of the affected parties and stakeholders, and staff has had additional workshops and all. And I think that the most significant thing that we can do today is advance -- I mean, words -- it may not, it's not a perfect rule but it's a good rule, you know, to get us where we need to go to. So at this point in time based upon the revisions that we've made, Madam Chairman, I would move staff on Issue 3.

CHAIRMAN EDGAR: Okay. So we have a motion to move

1	forward on the staff recommendation for Item 3 that would
2	include Issue 1 and Issue 2. Is there a second?
3	COMMISSIONER SKOP: Second.
4	CHAIRMAN EDGAR: Okay. Any further discussion?
5	Everybody in favor, say aye.
6	(Unanimous affirmative vote.)
7	Opposed? Show it adopted. And thank you all, thank
8	you to our staff and thank you to everybody who has
9	participated in the discussion and the workshops in commenting
10	to get us to this point. And I wish you all a wonderful late
11	lunch.
12	(Agenda Item 3 concluded at 2:59 p.m.)
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1	STATE OF FLORIDA) : CERTIFICATE OF REPORTER
2	COUNTY OF LEON)
3	
4	I, LINDA BOLES, RPR, CRR, Official Commission
5	Reporter, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.
6	IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been
7	transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said
8	proceedings.
9	I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative
10	or employee of any of the parties' attorneys or counsel connected with the action, nor am I financially interested in
11	the action.
12	DATED THIS day of December, 2007.
13	
14	LINDA BOLES, RPR, CRR
15	FPS¢ dfficial Commission Reporter (850) 413-6734
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