BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. UNDOCKETED

In the Matter of

INTERCONNECTION OF SMALL PHOTOVOLTAIC SYSTEMS; NET-METERING OF CUSTOMER-OWNED RENEWABLE RESOURCES AND INTERCONNECTION OF CUSTOMER-OWNED RENEWABLE RESOURCES.

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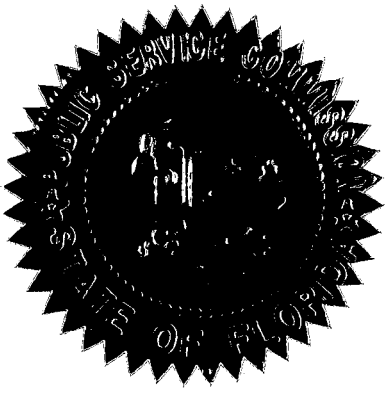

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PROCEEDINGS:	RULE DEVELOPMENT WORKSHOP
BEFORE:	CHAIRMAN LISA POLAK EDGAR COMMISSIONER MATTHEW M. CARTER, II COMMISSIONER KATRINA J. McMURRIAN COMMISSIONER NANCY ARGENZIANO COMMISSIONER NATHAN A. SKOP
DATE:	Thursday, August 30, 2007
TIME:	Commenced at 9:53 a.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	JANE FAUROT, RPR (850)413-6732

P R O C E E D I N G S

CHAIRMAN EDGAR: Good morning. I call this workshop to order. And I apologize for getting a little bit of a late start, but I'm glad to see so many of you here and so many of you that will hopefully participate in our discussion today.

We'll begin with asking our staff to read the notice.

MS. GERVASI: Pursuant to notice issued August 10th and August 15th, 2007, this time and place has been set for an undocketed rule development workshop on net metering and expedited interconnection standards for customer-owned renewable generating resources.

For clarification purposes, I would like to note that the rules noticed for rule development are the amendment of Rule 25-6.065, F.A.C., which is the Commission's current rule on interconnection of small photovoltaic systems, and the development of two new rules, 25-6.066 and 25-6.067. The current draft rule language that is the topic of today's workshop is contained entirely within the draft amendment of Rule 25-6.065.

CHAIRMAN EDGAR: Thank you, Ms. Gervasi.

Again, welcome. As I hope all of you know, or many of you know, that this is part of an effort by this Commission in the past few years to encourage additional renewable energy use and renewable energy generation in this state. In keeping with the direction from the legislature in House Bill 7123 last

session whereby they asked this Commission to encourage solar energy, including the use of net metering, and in keeping with the direction in statute asking that the Public Service Commission, again, encourage the use of renewable energy in this state, and in keeping with the Executive Order that the Governor issued earlier this summer asking that we initiate rulemaking on net metering, we are gathered here today to continue that process that we have been working on for some time.

We are going to start this morning with some brief presentations. I am hopeful and have asked that we begin our discussion today with hearing from some of those businesses and individuals who have been telling the legislature and the Commission that net metering rules and changes will help us encourage the use of distributed generation in this state, and that it can be done in a way that complies with our statutes and with the regulatory scheme that we have. And then we will move into discussion from our staff, and then from those of you who are interested in walking through the draft language that our staff has put together.

I'm very hopeful that we can get some real concrete ideas and suggestions, so part of that will maybe be slow and even a little tedious as we maybe go through section-by-section, but I think it's important that we have some language to get us started to look at, and then we can use

that as a vehicle for hearing concerns and suggestions as they are.

So before we move into calling our first speakers, I would like to make an introduction. To my left is Mr. Wayne Shirley, welcome, who is working with our staff. Mr. Shirley was a member of the New Mexico Public Utilities Commission and served there as Chairman from 1995 to 1998, and he has a lot of experience on this issue, and we are thankful for his willingness to contribute to the discussion.

And, Commissioners, before we move on to our first speaker, are there any other comments to get us started? Ready to move on. Okay. As always, I believe we do have a sign-up sheet in the back. If anybody is not a member of our staff's distribution list, please do sign up and give us your information so that we can be in touch with you and help to keep you up-to-date on what's going on here. And we do have microphones for people who would like to participate in the discussion, and we are going to jump right in.

And the first person that I have on my list to give us a brief presentation is Mr. Andrew Walmsley, the environmental services coordinator with the Florida Farm Bureau. Mr. Walmsley, welcome to the Public Service Commission.

MR. WALMSLEY: Good morning. Thank you, Commissioners, for allowing me to be here this morning to speak

on an issue that is very exciting for us in agriculture and still continuing to try to get a grasp around what is going to benefit both ag, as an industry, and the citizens of Florida.

First off, I'm going to be real brief, and probably some real general comments. There are some folks coming up behind me that probably know a lot more about this issue than I do, but, just really, agriculture is here, we want to help, we want to do our part to help with renewable energy. Within that, when we are talking about net metering, I don't think net metering in the sense that is traditionally thought of necessarily works the best for ag. If you think about it, we have several different drops throughout a farm, whether it be for irrigation pumps, different barns, whatever, which could be very cost-prohibitive to run lines and, basically, use what energy we produce and sell excess back onto the grid to where the meter is flowing both ways and stuff like that.

But if we were able to get a fair price for the electricity we can produce, and, from my understanding, we can produce quite a bit of electricity as technologies comes about and stuff. With that, a fair price to where maybe not exactly what we are paying from the utilities, but something that's not cost-prohibitive for us. I mean, for any farmer it's got a cash flow for them to do anything. And with that, to think fair prices and also incentives for, say, maybe a farmer can't necessarily put in a methane digester on his particular dairy

or cattle feeding operation, but if you had a co-op of farmers coming together. We had a tour last week with a company that's looking at a regional digester where you take manure and feed stocks and produce either gas or electricity and sell that back out.

They have looked around the country for places to be involved with this type of renewable energy. Their example they gave us was they looked at a place in Iowa, and they looked at a place in Minnesota. In Minnesota, the incentives weren't there, they weren't enticed as much, and they ended up in Iowa. So through that there are just -- there are just several things to look at. And just in general, Doctor Dahl (phonetic), who is the new animal sciences department chair, came from Illinois, and he made this comment last week where, you know, out there a lot of the farmers are looking at corn and soybeans, and, you know, that's what we're going to grow, and we don't want to look much past that, but he is really excited about Florida because of the entrepreneurship of our producers.

You know, that there is a way to do what's right, to make a little money, to provide, you know, energy, food to everyone, they'll do it. And whatever we can do to help that along to see what incentives or what fair pricing or whatever else we can get out of it, I think we will be able to really see a bright future for Florida. But with that, I'll leave you

with that, and if there are any questions, we would love to answer them.

CHAIRMAN EDGAR: Commissioner.

COMMISSIONER ARGENZIANO: Thank you.

When you say regional digester, meaning you would transport the manure, I guess, to one particular area so all farmers, then, could be using one instead of a cost to be borne by each individual farmer.

MR. WALMSLEY: Yes, ma'am, that's sort of the idea. There's a lot of different ways to look at that, some trucking, some if it's not cost prohibitive, piping. I mean, these are just options out there. We're throwing ideas out there. They actually have one up in the construction phase in Iowa to where they are going to truck from about a 45-mile radius manure and also food scraps. There's a bacon processing facility where they cook 6,000 pieces of bacon a minute, and that's like rocket fuel to this digester. So it's taking in a lot of waste that they can handle environmentally well, and producing -- in this case, gas from it.

COMMISSIONER ARGENZIANO: And you can still, I guess, realize a profit even using fuels for trucking?

MR. WALMSLEY: Through their models, yes, ma'am. I mean, they are taking in from energy production to carbon offsets, methane offsets, carbon credits, to handling waste, you know, there are some things that come out of the digesters

on the other end, bedding materials, potting materials that have some value to them.

COMMISSIONER ARGENZIANO: Thank you.

CHAIRMAN EDGAR: Commissioner Carter?

No. All right.

Mr. Walmsley, thank you so much for joining us. I appreciate your comments.

MR. WALMSLEY: Thank you.

CHAIRMAN EDGAR: Next I would like to call Doctor Del Bottcher, President, Soil & Water Engineering Technology.

DOCTOR BOTTCHER: Did you skip one?

CHAIRMAN EDGAR: Well, not according to my order, but we can do it in a little different order, if that's the desire.

DOCTOR BOTTCHER: Let Mr. Hall come first.

MR. HALL: I think it will be better in that order.

CHAIRMAN EDGAR: That's fine. That's not the order I have in front of me, but that's okay. Because we can be flexible, and if that makes more sense, it's okay with me.

So, Mr. Hall, welcome, from Suwannee Farms, good to see you.

MR. HALL: I appreciate the invitation to speak to you. I am Joe Hall. I manage and own, co-own Suwannee Farms, which is a farming operation. We grow vegetables, which is snap beans, potatoes, sweet corn, and carrots; and also we grow a lot of row cropping. We do peanuts, field corn, which is

used in our cattle feeding operation.

Our farm is somewhat unique. We are 6,000 acres, of that about 5,000 acres is irrigated. The other acreage is either in Coastal Bermuda, planted pines, or natural timber. That's the dry corners that the irrigation does not cover. We are located about half a mile from the Suwannee River, which sometimes we're not too proud of that location, you know, but we have been there. And we have worked with the University of Florida, the regulatory agencies on a five-year contract to check the nitrates getting into groundwater here, and we are very much mindful of, you know, controlling that.

In our cattle operation, we have been in the cattle feeding business in Georgia since the early '50s. We lost that -- we stopped feeding cattle in 1987 because there were no killing plants in the area. We think it's a very, very valuable and doable industry locally. Florida has roughly 800,000 calves that are shipped out west to be fed or finished and then slaughtered, and much of that you can assume is being shipped back here for consumption.

Historically, if you look at agriculture, most farms have had an animal part to it. And we certainly feel that a cow has very useful place on our land. They, unlike most animals, produce forage, and this is something that we can produce in off-seasons. We are lucky where we are located in that we have got a year-round growing season that we can

produce either corn, now that BT corn came into being which controls the worms during the summer time. It enables us to add another crop without having to buy more equipment or more land to utilize it. And what we're doing with this cattle operation is just plugging in to what we already have, you know, which is equipment utilization and labor, full-time labor utilization.

Another problem we have in feeding cattle in large numbers, we cannot do it like they do it in the west where you've got lower rainfall and you do it in large, large numbers. We have to consider nutrient management and, also, waste management as far as it getting out, you know, into the environment. We have approximately a 52-inch rainfall here a year, and there is no way that these cattle could be fed outside in any way, you know, maintain any balance of control of your runoff in waste.

We have been looking for sometime for a system that would give us this ability to do cattle here. We found that, we think, in Wisconsin. They have had operating systems up there, which is a methane digester that has been operating successfully over three years, and they are putting them out, you know, all over the United States. So we feel very confident that this will handle our waste problem.

What we will do is we will load this thing with a solid pack out of the barn. It will be cleaned out within ten

days. It will be a continual cleaning operation. We now have a feeding operation set up for 5,000 head, and we'll turn those cattle about one and a half to two times a year, so we will effectively be doing 8,000 to 10,000 head of cattle a year.

Unlike the ethanol business, our feedstock is a by-product. It's not subject to fluctuation, you know, of market prices like your biodiesel, which is derived from vegetable oils, or animal fat, or whatever. And also corn, you know, which is a very fluctuating market situation here.

There's one thing that is going to be absolutely in this world of high energy today that we regionalize some of these businesses. I'll give you an example of what our cattle are costing just to ship to the feed yard, and you can assume it's costing close to that to ship this beef back. But we ship our cattle to the Southern plains which is Texas, Nebraska, Kansas, and Colorado, which is about 1,200 to 1,400 miles, at a cost of at least 8-1/2 cent a pound. You can do the math on a 800-pound steer. It gets up there pretty expensive, and then assume that you are going to pay a similar freight in getting that animal back here.

So put that along with the shrink, the wear and tear on the animal, it's going to delay that calf before it gets finished and slaughtered at least a month just in the shipping process. So we feel like it is more humane, it's good business, and certainly filling a very big void in the state

here, and certainly on our farm to be able to utilize excess production time that we can produce in the form of forage.

I will say this, that in talking, and we have done a lot of research and looked a lot at these systems. One of the hardest problems that the people with the digester, one of the biggest advantages when it goes through, you are eliminating any odor, you are also capturing the methane or the biogas which is roughly 40 percent CO2 and 60 percent methane, you know, with some, you know, trace of sulfur in it.

When this biogas comes off the digester, which it's a completely sealed system, it stays in it roughly 21 days, when it comes out it's free of pathogens, free of weed seed, so it is a safe product, less the odor, and what we have done is we have concentrated the mass by 50 percent. In other words, this stuff is actually digested by the microbes that are in the digester.

We maintain a 100 degree temperature, and, like I say, it's completely sealed and insulated, so we feel like it is a system that will last a long time. It has no moving parts on the inside of it. As far as the methane or biogas, there is very little of it left in after it comes out of the system here. It hasn't affected the nutrients in it, it has taken the odor out, but it makes it a very important nutrient that we can use back on the land.

What our attempt is, is to do totally sustainable

agriculture. It will be a ways off, but certainly we feel like we can be energy independent on the farm with it, and it is certainly going to be contributing greatly to our nutrients. We have been hauling in, hauling in, you know, commercial fertilizer, you know, but this is a source that we can certainly recycle here. And I think it's a thing that can be replicated many times over, and we are going to have to do this for truly the system to work. I'm talking about the cattle feeding operation.

It will take 50 of these units to justify a packing plant, and we need to do that. And it could be plugged into farms just from a cooperative basis, or some of the larger farms could certainly handle it and also handle the nutrients here. It's a total package that has got to be looked at.

I think it's almost a must that we approach our waste management from this standpoint. You know, the spray fields that we have had, both municipal and the dairies and hog operations have not worked, it's a temporary fix at best. So I see this as a solution to that. And, granted, you have to have a certain economic size to justify putting in one of these systems, but by a cooperative venture, I think it definitely could be done.

We went up and pretty well got the details of how it has been dealt with with the power companies, and it varies from state to state. Vermont, for instance, is probably

further along or they are actually selling green power and getting a premium for it. They are getting a 4-cent premium, and then they're actually passing that back to the producer here, which makes the economics of a digester very, very good.

Our digester is going to have the capacity to handle these 5,000 head of cattle on a continual basis. We will be generating at least 90 percent of the time and producing 500 kW plus on a continual basis. They have got the engines and the gin sets perfected to where these things turn at a very low RPM. They have, you know, got a life before needing overall of 50,000 to 60,000 hours. So there has been lot of advancements in equipment. There's technology out of Europe that is pretty much, you know, advanced; but this system, I think, will take care of a larger number of animals than probably some of these European systems. But it is a doable thing. It's being done, and I think we need to consider it.

From a greenhouse gas system, they say cattle produce probably 15 percent of the greenhouse gases in the world here. And look at it on the other side, it's a very good resource to capture. And I think we're striving to have a system that will do that here. Do you all have any questions?

CHAIRMAN EDGAR: Thank you, Mr. Hall.

Commissioner Argenziano.

COMMISSIONER ARGENZIANO: Mr. Hall, aren't you a participant or a partner in the Suwannee River partnership

agreement with the BNPs?

MR. HALL: I'm sorry.

COMMISSIONER ARGENZIANO: Aren't you participating in the Suwannee River Partnership agreements?

MR. HALL: Yes.

COMMISSIONER ARGENZIANO: With the voluntary BNPs?

MR. HALL: Yes, we have been doing that for about six years.

COMMISSIONER ARGENZIANO: As a matter of fact, I think, if I recall, you have won some awards, or came real close. I know you have been written about doing such a great job and really trying to reduce the nitrates.

MR. HALL: Well, we try to do a good job. You know, we have to live in this environment, and we are certainly going to do everything we can.

COMMISSIONER ARGENZIANO: Well, I think the agreement is great, and I think what many farmers are doing is just wonderful. My question goes to if you use the digesters and then use the nutrients back on the lands, does this help going the extra mile somehow with the reduction of the nitrates in our waterways?

MR. HALL: Yes. We measure what we are putting out. We are now spreading this waste from the barn onto the land, but we very meticulously, you know, measure what we put out. And we are replacing, say, nitrates. And, of course, you have

NPNK, it's a very, very natural and balanced fertilizer that we are putting back out there as far as a nutrient balance.

COMMISSIONER ARGENZIANO: What I mean is if you used the digesters, does that also give a beneficial effect on the reduction of the nitrates in the waterways?

MR. HALL: It will not affect the nitrates at all. We attempting to do that with the growing crop. We are growing crops on that land 12 months in the year. We, by the way, do strip till agriculture; and we're sandy soil, it's a big acreage, and if we don't keep that land covered, it has a tendency to blow very much, particularly in February and March.

COMMISSIONER ARGENZIANO: Thank you.

CHAIRMAN EDGAR: Thank you.

Thank you, Mr. Hall. Thank you so much for joining us today.

Doctor Bottcher.

DOCTOR BOTTCHER: Thank you for letting us switch.

CHAIRMAN EDGAR: Of course.

DOCTOR BOTTCHER: Because having a picture of his farming operation, I think, is pretty important because I'm going to talk about some of the economics associated with how his system and net metering will impact the economics of that system, which I think is the crux of what we really want to get to.

Why net metering, why go to net metering? And the

main reason, obviously, is it really is going to be an incentive to increase the bio and renewable energy production. And when we talk about that, in dairies alone in the state of Florida, if we went into a full production of bioenergy with them, we're talking from one to 300 megawatts of capable power production. That's nothing to shake a stick at. So that's a lot of power that can be generated, if we can get that kind of incentive built into the system.

Right now, the way the structure is, most of these systems are not economically feasible because there's just not enough return to compensate for the cost of that. And what I want to try to show is that, really, developing net metering as an incentive is going to be a minimal cost to the utility companies, and that's primarily through the fact that right now, in order to take the benefits of the power production, like on Joe's farm, it would be to his advantage to utilize all of that power on his own farm first, because he would get full value of the electricity. And so -- and I will show that that is really what is going to happen is if there is a strong incentive for him to spend the money to build the interconnectivity within his farming operation to utilize the power, which is a cost that we can totally avoid with net metering.

And I was glad to see, because I really hadn't seen the rule wording that the definition that I wanted to put

forward for net metering is really what is in the rule, the proposed rule. But where it really covers the ability that net metering is associated with a legal entity, not just by a single meter, so that in Joe's farming operation he has over 20 different meters across his farming operation, and the net metering has to be handled through an accounting method not through just a spin-the-meter-backward type approach, which can be accomplished the same way. You can do it through the meters, but it is much better to do it through accounting because it eliminates that unnecessary cost of doing all the internal interconnectivity. And I'll show you in a minute just how that really comes out economically.

Just some basic benefits. Joe touched on some of these. Reduce line costs. When we start going to local generation of power, there is about a 9 percent transmission loss, typically. My understanding for Joe if he was using his own power, there would be none of that, so it would actually reduce the net power by a larger fraction than just the amount of power he is generating due to those line losses. And having some stable local generated power can provide backup power during emergencies, there is some of these issues, to even out power during peak demands. These are just some of the kind of technical issues of how the power could be utilized.

Another critical issue here is what to do with the carbon and renewable energy credits that could be coming from

this. Methane has a 15-to-1 carbon credit over CO2. In other words, it's considered to be that much more of a greenhouse gas than CO2 itself. So the amount of all the methane being generated here is actually going to be converted to CO2 through the production, and so there would be a very large amount of carbon credit being generated by the system, and that would have to be looked at who would gain that carbon credit, would it be maintained by the farmer or would it go with the net metering, but that is something to be negotiated.

Of course, I think the one thing that we all realize, the public relations aspects of getting bioenergy, reducing our dependency on foreign oil and reducing these methane and CO2 emissions, the carbon footprint is something that we are all very interested in, and this program would encourage that. And so from a public relations standpoint it's very beneficial.

To the customer, for example, to Joe, it really -- going to net metering is going to eliminate this interconnectivity aspect of it. Because all the switching gear that would be needed, there would be the possibility of additional power lines having to be run. It would simplify his O&M operation if he wouldn't have to deal with all of those switching gears and lines and that sort of thing. So there is a big benefit from a cost standpoint if we went to net metering. I refer to this interconnectivity because this is something that we can do now to gain the most benefit out of

it, but it's a cost that we should try to eliminate through net metering. Again, the public relations on the customer side.

I want to just spend a minute on this, and I apologize for it being a little bit small, but to me this tells the story of what net metering will mean to this operation. And this is just an example. Basically what I'm showing here is here is the current contract arrangement. These two columns here is the current contract arrangement we have with Seminole Electric now as far as being able to sell power back to them. And the intent is to build a system and really put 100 percent of the power out onto the grid. That is how the system is currently set up.

It's going to cost about $308,000 a year to produce the power running this operation. Right now the farm is spending about $297,000 a year in electrical bills just paying for electricity and their usage. And they would be putting back onto the grid about -- well, actually they will be putting back on the grid 4.4-megawatt hours of electricity per year, which the power company would buy for approximately $242,000.

Kind of getting to the bottom line of this, with the sale of the power and what it costs them to produce the power, and paying for the electricity, over what they are doing now without having the system in there, they would end up actually losing $66,000 a year to put this system in unless there is some sort of cost incentive that is going to be provided. But

it's a loss, it's a complete loss at this point under the current system.

This is compared to pre-farm generated power and them putting the system in. But if they put the system in, they put in interconnectivity, and we estimated a cost for what it would take amortized out on an annual basis of about $100,000 a year to build the interconnectivity so he could utilize all the power himself on the farming operation, which he could do now, that is within the current rules that that could be done. There is a pay back for him to do that, because he will be going from -- instead of getting point -- about 5-1/2 cents a kilowatt hour, he will be getting about 11 cents per kilowatt hour, almost doubling the value of his electricity.

So there is a lot of money there, revenue potential for him to afford to build the interconnectivity. So he could reduce his cost significantly by about $40,000 a year, but he is still in the negative, because it's still not economically feasible to do this from just economics.

I have to point out, though, there are other benefits to this. The reason Joe is going to do this, there is the odor control, there is the water management benefits, and he is going to get some solids that he can sell out of this. So there are other benefits that have tipped it so he has decided to do this way, plus getting a grant from the USDA. All of those factors have allowed this to happen. But that unique

condition is not going to occur for everybody else, so I didn't put in this the grant money, because this would not be the normal case.

So what happens now if we actually just allowed him to go through net metering, take all of his meters on his farming operation, take those meters, whatever power he's consuming and just subtract off of that the amount of power he is putting back on the grid, and then the excess he would get, and he is actually getting about 1.7 megawatt hours per year excess. He's producing more than his farm, so he still would be selling power out to the grid.

But the point to be seen here is that from the power company's standpoint, if you went to net metering versus him doing the interconnectivity, it would be the exact same impact on the power company. It doesn't hurt the power company to go to net metering. And from an economic standpoint, if you actually look at the ultimate bottom line here, suddenly with net metering there is a payback for putting this system in.

And I think that, you know, that is the bottom line that I wanted to point out here is that this net metering is really going to be a critical incentive tool to get these renewable energy resources put out there. And with that, I'll open it up to questions.

CHAIRMAN EDGAR: Thank you.

Commissioner Argenziano.

COMMISSIONER ARGENZIANO: Doctor Bottcher -- is it Bottcher?

DOCTOR BOTTCHER: Yes.

COMMISSIONER ARGENZIANO: Doctor Bottcher, in looking at some of this and looking at your attention of net metering, have you read the staff's definition or recommendation?

DOCTOR BOTTCHER: I just received it this morning and I have scanned it, but I do want to go through it in detail, and I was going to ask if there is a period that we can provide written comments after this workshop.

CHAIRMAN EDGAR: Yes, there is. In fact, we are asking for written comments from all of our participants after this workshop. And I think -- I'm sorry, I don't have it in front of me, I'll ask Mark. What is the date that we were going to ask for written comments by?

MR. FUTRELL: We're targeting September 18th.

CHAIRMAN EDGAR: So, yes, we would very much like your written comments after this meeting.

COMMISSIONER ARGENZIANO: And some questions that I have that I want you to think about, I don't know if you can answer them right now, but maybe incorporate them on or answer them now into your written comments, also. I'm not too sure about the insurance provisions, and I'm going to ask staff later, also. Would the insurance -- because this would be a Tier 3 operation, according to the recommendations for the new

rule, and there is a requirement for, I think, it's a million dollars of insurance. Would the farmers -- and I know that Mr. Hall has a little larger farm, and that is what is enabling him to do this, too, plus the other incentives that you have mentioned, would that insurance be available and affordable to the farmer?

DOCTOR BOTTCHER: I would have to review and answer that question, because I do not know the answer to that. Unless you do, Joe.

MR. HALL: (Inaudible. No microphone.)

CHAIRMAN EDGAR: I'm sorry, what --

DOCTOR BOTTCHER: I will need to investigate that.

COMMISSIONER ARGENZIANO: Madam Chair, if I may --

CHAIRMAN EDGAR: Yes.

COMMISSIONER ARGENZIANO: What I'm looking at is I want to make sure that whatever we're doing is not going to disincentivize.

DOCTOR BOTTCHER: Well, you will have to be careful, because obviously if you put something in the rule that requires a certain type of insurance coverage first, just riding up this morning, Nationwide is dropping, what, another 300,000 homeowners in the state of Florida, so getting insurance is going to be more and more difficult. And so, you know, I just warn against putting anything that potentially would be a negative incentive, but I think Joe has pretty good

insurance coverage and would be able to probably get the insurance coverage required, but let me give you a definitive answer.

COMMISSIONER ARGENZIANO: Madam Chair, I think that is important whether it's the larger farmer or the smaller farmer. And the smaller farmer obviously would be in a different tier, but I still want to know if the insurance is available, and what you guys are really finding maybe your premiums -- or if they changed your current insurance premiums. And the other question, Madam Chair, I have is in the recommendations, the net metering, the utility would pay you yearly. I don't know, that may be okay for a larger farmer, but I'm not sure how it affects the smaller farmer.

DOCTOR BOTTCHER: Well, I would think on a smaller farmer, it could, because a lot of farmers are seasonal, they are having to borrow money to get through certain seasons. And basically you're asking the farmer to carry that money at their cost, which I would encourage if it's possible to have it set up, since metering is done on a monthly basis, why couldn't it be done on a monthly basis.

COMMISSIONER ARGENZIANO: Just some concerns that I have, I'm sure we'll be hearing, Madam Chair, because I know that the smaller farmers are living day-to-day and trying to make ends meet.

DOCTOR BOTTCHER: I think for some of the smaller

farmers it could present more of a hardship to have that money held back for that long of a period.

COMMISSIONER ARGENZIANO: Thank you.

CHAIRMAN EDGAR: Thank you, Commissioner.

Commissioner Skop.

COMMISSIONER SKOP: Thank you, Madam Chair.

I also have Commissioner Argenziano's concerns with respect to the insurance issue, more specifically the affordability, the availability, and the appropriate insurance limits. So at the appropriate time when we get into the discussion, because, again, insurance is skyrocketing in the state of Florida. There has been legislative reform, as well as the Governor's actions to address that, but certainly insurance costs and the manner in which they keep increasing might affect the financial feasibility of doing such projects. So, again, that is an important concern that I think staff needs to take a look at.

CHAIRMAN EDGAR: Thank you.

And we look forward to your follow-up, I hope, written comments as well.

And next I would like to ask Mr. Steve Davis with Mosaic Fertilizer.

MR. DAVIS: Good morning.

CHAIRMAN EDGAR: Good morning.

MR. DAVIS: Thank you for the opportunity to speak.

I actually thought I was going to be a little bit more out on my own as far as the message that I was going to be bringing to you guys than what obviously that I am, given the remarks that we heard from Doctor Bottcher and Mr. Hall.

The overall theme of my discussion weighed heavily into the idea that net metering as a proxy for a direct interconnection makes a lot of sense, and it's really just an uneconomical use of resources to go through the direct interconnections when you can do the same thing through net metering.

So I'll start with the presentation. I'm just going sort of blast through these first few ones about who Mosaic is. We were formed in a merger in 2004 between Cargill and IMC, just in case you are not familiar with the name of the company. The markets we serve. Mosaic has approximately 3,200 employees in Florida, and indirect jobs overall in Florida for the phosphate fertilizer manufacturing business in the neighborhood of 20,000. So we're a major economic stakeholder in Florida.

The actual process, and I'm not going to get heavily into this, but there's two different segments to our business. The first one is the mining and minerals processing part, that's where we have the very heavy electricity consumption, and then the second part of our manufacturing process is the actual phosphate fertilizer manufacturing facilities, that's where the renewable energy waste heat recovery generators are

located.

I'm not going to go heavy into this slide, either. I want to just sort of call your attention to the upper left where you see that a starting point in the process is to react air with sulfur as part of making sulfuric acid. That is an extreme exothermic reaction at around 2,000 degrees Farenheit. It gives off a lot of heat. Whenever the fertilizer manufacturing facilities just came into operation in Florida and other states, most of this heat was just dissipated to the atmosphere. And what has now happened with Mosaic and other companies is that we -- sorry about that. I'll just hold it.

CHAIRMAN EDGAR: If that works for you. If not, we'll get you some help. Thank you.

MR. DAVIS: We have constructed heat recovery systems to actually capture the heat and to convert it into steam. We use the steam first to meet the process needs of the fertilizer manufacturing, and then the remainder of the steam is piped into steam turbo-generators to produce electricity. You see that listed as a cogeneration plant right up here. And the output of the cogeneration plant, to some extent we already have net metering behind a single metering station.

At that complex where the fertilizer is being produced, we first serve the needs of the electrical loads there, and then there is some additional electricity that's available, and I'm going to be getting into some of the

economic drivers about what to do with that electricity coming up. As far as the process goes and the environmental attributes of the process, there is no fuel associated with this. This interacting of sulfur with air has to be done as an inherent part of manufacturing fertilizer, and so you really are sort of faced with the choice of just letting the waste heat go to the atmosphere or actually collecting it and getting some useful productive work from it. So there is no fuel directly associated with the production of the electricity, there are no pollutants because all we are doing is capturing waste heat and turning it into steam, and there are actually no open land areas disturbed, because the renewable energy generation is actually located inside of the complex where we are producing the fertilizer already.

As you are, I'm sure, aware, it has already been recognized in Florida Statutes, this one lists 377.803. I think it's also in 366.91. And then from a federal standpoint, the recently approved by the United States House of Representatives bill included a renewable energy portfolio standard, and a part of that legislation said that up to 27 percent of the RPS standards for utility companies could be satisfied with combined heat and power systems, incremental additions to combined heat and power systems, and that's what this is. So there is definitely the potential for -- on paper, this power flows to the utility company to craft a document

such that it can be incorporated into the native utility's accounting for meeting their RPS goals from a federal standpoint and possibly if there is future state, also.

This slide just shows a map of where locations of facilities are located. These are the mining and minerals processing plants that are the large consumers. I won't go into detail.

This one is the actual renewable energy generation sites. The same map, I have just highlighted the actual complexes where you can see we are all there together. And Mosaic owns the vast majority of the land that you see on this map. So it's mainly on contiguous property that we already own.

This slide show the capacity. We're obviously a little bit bigger, and I don't know what tier this would be, but not Tier 3, maybe Tier 12 or something, where our capacity is close to 300 megawatts for our actual renewable energy nameplate. The second two columns is what we have actually done January through June as far as average output by location and the average that we are actually exporting to the grid on an as-available basis.

I will call your attention to a couple of things there. One, you see that Bartow is sitting at a zero as far as as-available exports. That is a little misleading, because we have a contract, I think it has been in place with Progress

Energy for about 20 years now. It expires at the end of this year. So there is going to be, like, 15 megawatts available for as-available export to the grid right there. You see the South Pierce, 13 megawatts up there.

I think I may have broken the thing. But, anyway, it --

CHAIRMAN EDGAR: Mr. Davis, we're going to break in just a moment.

Commissioner.

COMMISSIONER ARGENZIANO: Just a question for my own knowledge. The Mulberry plant, wasn't that shut down for quite sometime?

MR. DAVIS: Yes. I think there are still portions of the facility that are down. And I'm not directly into the operation segments right now, but I don't know that we are doing some of the actual phosphoric acid production there now. I think we're primarily doing sulfuric acid production, but there was a large portion shut down.

COMMISSIONER ARGENZIANO: Thank you.

MR. DAVIS: So we got the 13 megawatts from South Pierce, and actually I'm going to talk about that a little bit more coming up in a future slide, just to take note of. New Wales, this slide just shows that we have got a couple of expansion projects that we are looking at right now. We are hoping to bring one of these 30 megawatt TG-3 expansion

projects on line at New Wales during 2008, maybe mid-year 2008.

We also have waste, additional waste heat recover projects that can be executed at New Wales to put in another 30 megawatts on top of that. Pure waste heat recovery, again. However, there is an issue that is sort of a sideline issue that you may need to know about, is that there could be a Power Plant Siting Act issue with that last 30 megawatt addition. Because as it stands rights now, unless we would execute a contract with our native utility or get some kind of legislative relief, there is no carve-out in the existing legislature to allow us to do that.

You see that New Wales right now is sitting at 67 megawatts of capacity. Well, then we will add 30, that would be allowed through the 2006 carve-out that the utility companies worked with us on to allow that to happen, you know, above the 75 megawatts. But then once we've done it once, we can't do it again unless we execute a contract with the utility to be able to go through the Power Plant Siting Act as a qualified applicant. So that's one of the side issues that maybe we could roll into a net metering contract is something that actually deals with that issue, because I think it is a shame to have the ability to put that additional capacity on line physically, but not being able to do it from a legislative standpoint.

And then I talked some about the extra power that

would be available after we meet the needs of the electricity load at the fertilizer manufacturing facility. There is an economic driver here. The driver is, I think, very similar to what we heard from the farm community about you get paid less for the power that you export to the grid versus the amount of money that you are paying for power that you are purchasing from the grid. And, as I mentioned to you before, we have got these very large electricity consuming sites at our mining locations. And so we pay around $15 to $20 more per megawatt hour for those purchases versus what we are putting to the grid.

So what have we done about that? This slide sort of highlights that. And if you look at Bartow, for example, in the upper right, you can see the solid red lines. Those represent 69,000-volt transmission lines that Mosaic has constructed, owned, and maintained and still does that to this day where we interconnected the renewable generation site at Bartow and Mulberry with Hookers Prairie and South Fort Meade Minerals sites.

Another thing that is interesting to see on here, I think I called your attention to the 13 megawatts at South Pierce that we're currently exporting to the grid. Well, up until June of 2006 that wasn't the case, because we consumed that power internally at Fort Green. However, now Fort Green is closed, and so it is the nature of the beast with our

mining, is that you extinguish the reserve base and you shut down the facility. So the tie line is no longer active, so where we were effectively capturing that opportunity cost associated with the $15 to $20, we are now no longer getting that, because the tie line is no longer active so the power goes to the grid. That 13 megawatts, if you just sort of ran the rough math on it, at $15 per megawatt hour opportunity cost, there's around $1.7 million a year that we're losing from an opportunity standpoint by moving that power to the grid instead of offsetting power purchases elsewhere.

The other thing that I definitely call your attention to is New Wales. New Wales is actually in a very slight net import mode right now. That is the location that I'm talking about having the potential for adding up to 60 megawatts of additional renewable energy generation.

Well, when I do the economic evaluations associated with those new facilities coming on-line, they're going to be evaluated at $15 to $20 per megawatt hour lower price than what I would otherwise be able to get if we had something like a net metering concept that was approved.

Final slide. What am I asking for? Well, what I would like for you guys to entertain is the possibility of actually allowing net metering. I'm not sure how well it fits with the documents that have been prepared to date, because I have a concern that they may only address, and I think I

briefly talked to Mark about this, that they may only address the smaller operations and not apply to a large operation such as Mosaic. But even if -- another thing, I'm obviously not an attorney, so I don't know how this would take place, whether or not there would need to be an actual rulemaking in order for it to be allowed, or whether or not if we could enter a special contract with a utility company, whether or not -- there would be need for a rulemaking, per se, to allow that contract to go forward. But, anyway, that's basically what I'm asking for.

You can see a lot of the stuff that I've already talked about, about this being a good idea. Definitely it's a shame, I would welcome you to come by and look at some of these power lines that we've constructed, and how they're sitting there right beside of the utility company power line. It's a waste. We have operational issues where we would love to be able to not run those tie lines because we would like to be able to operate our concentrated fertilizer facilities autonomously from our minerals processing sites. But now with the tie lines there, which we kind of have to do because we can't just ignore that $15, you have to coordinate repair days, there's issues where you have, like, a capacity alert that may be issued, and you would want to react to that capacity alert in a different way at the concentrated fertilizer operation versus how you would act at the minerals processing sites, but you can't do it because they are hooked together.

And I think, you know, also the RPS standard stuff that we could hopefully craft contracts to address that, and I think it's very much in line with the legislative intent of 366.92, which I have typed in there a lot of the pertinent details. So, that's my say. Any questions?

CHAIRMAN EDGAR: Thank you.

Commissioners, any questions for Mr. Davis? None at this time.

Mr. Davis, I am hopeful that you will take advantage of the opportunity to give us some written comments, as well, and I know our staff will work with you, but a couple of the points that you have raised regarding all of those kind of collocation of lines, and issues with the Power Plant Siting Act, and a few other points that you have raised I know would be helpful to me, anyways, to have in writing. So, thank you. I appreciate your participation.

MR. DAVIS: Thank you very much.

CHAIRMAN EDGAR: And next I would like to ask Ms. Colleen Castille to come forward, former Secretary of the Department of Environmental Protection.

Welcome.

MS. CASTILLE: Thank you, and good morning, Chairman Edgar and members of the Commission. It is a pleasure to be here. It's a pleasure to be back in Tallahassee and working on these very exciting issues.

Ever since Governor Crist had his Serve to Preserve Conference in, I think it was July, there has just been an incredible excitement in all of the alternative energy arenas for coming to Florida. As you know, the Department of Environmental Protection and the Department of Agriculture have grant programs to support renewable energy of all types. And while there has been more grant applications than monies available, even though there are more monies available this year in some of the other agricultural renewable arenas, the projects will not work as effectively unless there is net metering.

And the net metering -- there are 42 states in the nation that have net metering rules, and so it's time for Florida to develop a net metering rule. And I'm going to speak a little bit to the rule in specificity so that you have some idea of what we think are some of the good parts of the rule.

This is a great rule, by the way. First of all, it is easy to understand. I'm very familiar with the rules of the Public Service Commission, and so this was really great for me to be able to understand it, because I consider myself a normal consumer. Now, give me a DEP rule, and I can complicate the world for you. But I'm in the business; I have a new company called Go Green Strategies, and I work with companies to become greener, essentially. To look at solar, in particular, solar photovoltaic generation, electric generation facilities at the

location. So for the clients that I'm working with, this is incredibly important to get accomplished in the state.

The least expensive kilowatt to build is that which you conserve. And so I think we have to continue with the message across the board to the communities and to our consumers to conserve energy, and we're moving forward with that. We've got the huge campaign for compact fluorescents that is moving forward, we've got the campaign for looking at your individual usages, and keeping your electricity at 78 degrees, and it has been really hard during these 100-degree days that we have had, but that is the least expensive.

And the next least expensive is those that are somewhat subsidized by the state government. To subsidize manufacturing, not necessarily the manufacturing, but the purchase of solar -- I'm going to call that PV -- PV and other types of alternative energy usage. And to develop those and utilize everything best that is at the location, distributed energy essentially.

And we have got a number of alternatives that are out there. And to this rule, one of the things that I wasn't particularly clear of, although it didn't seem to prohibit anything other than solar PV and wind systems, it wasn't clear to me that it applied to all alternatives. And so some of the agriculture presentations that you have heard this morning, to me it's not clear that that is supported here. Although from

talking to some of the staff and from you all, I understand that that is included. But it should be more clear that there should not just be those two types of renewables outlined in the rule. I think it should be expanded.

And, additionally, the issue of liability. I have looked at some of the other rules in the states, California in particular, New Jersey, and some of the northeastern states, and liability is generally required, liability insurance is generally required in each of those rules. And there is a necessary reason for that. Although I think you bring up a very good point as to whether that liability insurance is going to be available here. It would typically be a specialty insurance which hasn't really seen the decline in the market as property and casualty has been in the state. But I'm not an insurance expert, so that would probably be a good thing to have the staff check out with the Department of Insurance.

And then, lastly, the issue of the cap on generation between the tiers. I think that, you know, although some people say it's probably best to tread lightly when you first tread into an unknown area, it's only unknown in this state, it's not unknown in other states. There are 42 other states that do this, and the caps should really, I think, be removed. And I think that there should be support for any level of generation.

And that's my comments.

CHAIRMAN EDGAR: Thank you, Colleen.

Commissioner Argenziano has a question.

COMMISSIONER ARGENZIANO: Thank you, Madam Chair.

Colleen, in the staff's proposed rule, it does indicate on Page 1, Line 22, renewable energy is as defined in Section 377.803, and let me just read you that one section and see if that captures all that.

MS. CASTILLE: I think it does capture all of that. The problem is going from one rule to another rule, and it just makes it difficult for the common person, the common consumer to have to flip between rules.

COMMISSIONER ARGENZIANO: So, in other words, just actually maybe writing down what is included in that statute.

MS. CASTILLE: Yes.

COMMISSIONER ARGENZIANO: Okay. And my last question right now is if I go to Dunnellon this weekend, should I say hi to your aunt?

MS. CASTILLE: Absolutely. Say hi to Aunt Doris for me, please.

COMMISSIONER ARGENZIANO: I will. Thank you.

CHAIRMAN EDGAR: Any other questions, Commissioners?

Thank you, Colleen. I appreciate you being here. Of course, the same to you, if you would like to give us written comments, we would look forward to those, as well. And I don't think I made that point when Mr. Walmsley was speaking, but the

same to Mr. Walmsley, written comments afterward will be very helpful to us and to the staff.

Commissioners, that concludes the presenters or speakers that we had lined up to kick us off today. Our next step is to ask our staff to walk us through the proposed language. I had asked the staff when we were putting together the agenda that I thought it would be helpful to me to help get my thoughts in order to hear from some actual businesses as to what some of their thoughts were on these issues, and I hope you have found that helpful. I know I have.

I think what I would like to suggest is that maybe we take just about seven minutes, we're going to switch focus just little bit now into the actual rule language, so let's take about seven minutes, a short break, and then we will come back and look to our staff to walk us through.

(Recess.)

CHAIRMAN EDGAR: We are going to go ahead and get started here in a moment.

Thank you all for staying with us. And next on our agenda I'm going to ask our staff to walk through the draft language that was put out with the notice. And I do understand that there may be, I believe, the same language but perhaps more than one version as far as just the way the printing and all that came out.

So, Mark, if you could maybe help us make sure that

we are all looking at the same thing and then look to you to get us started.

MR. FUTRELL: Sure.

Commissioners, in your notebooks under Tab B is a document that is the existing rule on expedited interconnection and net metering for small photovoltaic systems, and that document is entitled, "25-6.065, Interconnection of Small Photovoltaic Systems." And we provided a copy for the audience and the participants today, and that has been provided out, and that is the existing rule.

What the staff draft is proposing to do is to strike that rule and replace it with the language that you have in your notebook under Tab C, which is the document entitled, "25-6.065, Interconnection of Customer-Owned Renewable Generation and Net Energy Metering," and that document has also been provided for the audience and the participants today. And I would suggest that for ease of -- as the participants discuss the rule and make citations to it, that they use that document that has been provided today, just so that the pagination and the line numbers do not create any kind of confusion. So, if we could work from that when we make any references, I think that would help the discussion.

CHAIRMAN EDGAR: Okay. So we will be using for our discussion today the copy that has been available here. If anybody needs a copy, I think we still have copies or we could

get more. My understanding is that the language of the draft is exactly the same language that was put out with the notice and available, but the line numbers may be a little different. So we will work from the copy that is here.

Mark, if you would.

MR. FUTRELL: Thank you, Chairman Edgar.

I would just like to make a note that as we talk about this rule, the intent of these draft amendments are similar to the original existing rule on small PV interconnection and net metering, and that is to encourage customers to use their renewable generation to meet their own needs. The draft, if we start on Page 1 and we lay out an application and scope, and note there that this draft rule would be applicable to all electric utilities as defined in Section 366.022, Florida Statutes, whereas the existing rule is applicable to investor-owned utilities.

We then have a definition section where we define terms used in the rule, including customer-owned renewable generation, gross power rating, net metering, and renewable energy, which is the definition cited in 377.803, which is a very broad definition which includes several renewable energy sources.

CHAIRMAN EDGAR: Before you move on -- Commissioner Skop, did you have a question?

COMMISSIONER SKOP: Yes. Thank you, Madam Chair.

With respect to the application and scope, I don't know whether it's possible to make a constructive comment, but in the application and scope section, on Line 4, for the phrase "particularly photovoltaic and wind systems," would it be possible to revise that to be "wind-to-energy systems," consistent with the other language?

Thank you.

MR. FUTRELL: Thank you.

At the bottom of Page 1 is the section where we begin to discuss the provisions for the expedited interconnection of small renewable -- or renewable generation systems. And it lays out a time line for providing the interconnection agreement to customers, and that the agreement comply with the following standards: That would be IEEE 1547, which was noted in the Governor's Executive Order, and UL 1741, which covers standards for inverters.

We also have a section, Section B and C, which covers the certification of equipment that is to be used, that it be certified from a nationally recognized testing certification laboratory, and this is new language compared to the existing rule. On Line 21, we have Section (4), which we have the customer qualification fees, and we set up tiers where we have 25 kW or less for Tier 1, Tier 2 between 25 and 100 kilowatts, and Tier 3 greater than 100 kilowatts and less than or equal to one megawatt. And that's used in the following section on Page

3 beginning in Sub (a) where Tier 1 customers are not required to be charged any fees associated with the application or any other fees. We do provide in Section (b), we are suggesting that Tiers 2 and 3 be -- that the utility may propose a standard application fee for Tiers 2 and 3 to recover costs associated with reviewing these agreements.

We also suggest in Section (c) that the utility may propose for the Commission's approval an interconnection study charge for Tier 3, the larger systems, where there potentially could be some impact on the system, and that study would identify that if needed.

And also in Section (d), we note that all of those fees have to be that the utility proposes for Commission approval are cost-based and reasonable. Then in Section 5, Line 13, Page 3, we lay out the contents of the standard interconnection agreement. And many of these sections are taken from the existing rule as far as the inspection of the system, and approved by local code officials. On Lines 16 through 18, Sub 2 is the provision about inspection, permitting the utility to inspect the system and to make sure it's in compliance with those previous Sections 2 through 4. And also that the utility may have personnel present at the initial testing of the equipment.

Sub 3 is the provision that the customer is responsible for protecting their equipment and other devices

associated with the renewable energy generation. Again, this language is straight out of the existing rule.

Sub 4 is the liability section where we identify no more than $100,000 of liability for Tiers 1 and 2, and no more than one million dollars for Tier 3. The intent there was to mimic some of the language from the existing rule whereas for smaller --

(Technical difficulties. Recess.)

CHAIRMAN EDGAR: Okay. We are up and running again. And, once again, thank you all for your patience. So we are going to try to start, I think, where we left off last.

And, Mark, if you would, we can start walking through. And I hope it was clear from the agenda, but if it wasn't, or if I did not make it clear, what we have asked Mark to do is kind of give us an overview of the proposed language, and then we will come back and sort of walk our way more slowly through each section and take comments and have some discussion.

So, Mark, if you would at the point that we were last.

MR. FUTRELL: Thank you, Chairman Edgar.

We had left off on Page 4 of the draft rule amendments, Line 5, talking about the insurance provisions. Again, the idea was that for residential homeowners that would install a renewable system, that if they have an existing

homeowners policy that that would most likely cover the requirements here that are, again, identical to what is in the existing rule, and there would be no additional insurance costs for those customers who have an existing policy that provide this kind of liability protection.

CHAIRMAN EDGAR: Commissioner Argenziano.

COMMISSIONER ARGENZIANO: Thank you.

I didn't mean to cut you off, but to that point, I would be covered -- if I decided to buy solar panels for my home, my current insurance policy is not going to require me when I call them up and say, well, now I have these certified solar panels, you are comfortable with, I guess, the statement that they will not charge me any more or they will cover that equipment?

MR. FUTRELL: As I understand it from the existing rule and the way that that is operated, that the general liability provisions are in most homeowners policies, and it's included.

MR. CASEY: If you were requesting the insurance company to cover your solar panels, then they may charge you more. But what we are talking about is the general liability portion of a homeowner's policy that chances are you already have, and so you wouldn't have to take out additional coverage to satisfy this rule.

MR. FUTRELL: Right. If you're trying to talk about

protection for damages from that solar equipment or renewable to your home, or some property damage, there could potentially be something there. But as far as liability for, say, someone who might be working on the lines and could be injured, then that would take care of it, this would take care of it.

COMMISSIONER ARGENZIANO: Madam Chair.

CHAIRMAN EDGAR: Yes, ma'am.

COMMISSIONER ARGENZIANO: I have tried to read through my insurance policies over the years, and, boy, they are tough. But I don't ever recall seeing anything like that in there, so maybe I'll go home again and painstakingly go through that just to see if there is. I don't know that that is widely applied to a regular homeowner's insurance policy, and I think I would just like to check on that.

MR. FUTRELL: We'll certainly double-check and go back over that thoroughly and make sure we investigate that.

COMMISSIONER ARGENZIANO: Thank you.

CHAIRMAN EDGAR: Commissioner Skop.

COMMISSIONER SKOP: Thank you, Madam Chair.

Again, I was going to wait a little bit before bringing up this concern, but I think it's good timing since Commissioner Argenziano addressed it. But getting to the crux of the matter, I like the tier system, and looking at the insurance issue, again, I think that's of concern to me, also, for the reasons that both Commissioner Argenziano and I

expressed earlier this morning. Can staff take a look at that insurance requirement and moreover, again, focussing on the affordability, the availability, and the appropriate amounts of coverage for each tier to the extent that, you know, insurance requirement is going to impact the financial viability of such projects.

But, moreover, I think staff mentioned and Commissioner Argenziano just also mentioned the ability of existing homeowners insurance to cover such installations on small installations, for instance, maybe a solar hot water heater or pool system or something like that. And the existing tiers as defined in Paragraph 4, perhaps taking a look at that and maybe making a sub-tier or smaller category of Tier 1, where you might be able to qualify if staff analysis shows that homeowners insurance would meet the applicable or appropriate amount of insurance coverage. So just looking at the tiers in relation to insurance and finding some best practices there, that would just be a general point of comment or concern that I would like staff to take a further look at. Thank you.

MR. FUTRELL: Commissioner, we will take a very close look at that. That was a very contentious issue with the enactment of the previous rule on insurance and working through all of those issues there, and we'll take a very hard look at that.

COMMISSIONER SKOP: Thank you.

MR. CASEY: And, Commissioners, just to clarify, the current rule, interconnection of small photovoltaic systems does state a homeowners policy that furnishes at least this level of liability coverage will meet the requirement for insurance. The current rule states that. Our intention was for that to simply apply, as well, but with the tiered system, there would be other policies besides homeowners, so we didn't specify.

COMMISSIONER ARGENZIANO: To that point, though, the current rule only has $100,000. There is no million dollar --

MR. CASEY: Correct, the 100,000 would be for Tiers 1 and 2 in the proposed rule.

COMMISSIONER ARGENZIANO: Right. My concern would be now would the insurance companies want to address the -- would they want to cover a liability of a million dollars without a higher premium.

MR. CASEY: I understand what you're saying. I'm guessing that for a system that large to be installed, it would not be a homeowner policy, it would not be something you would expect to be covered by a homeowner policy. That would be more associated with commercial/industrial.

COMMISSIONER ARGENZIANO: Okay. Then, Madam Chair, to that point in the new proposed rule, that's not -- we're requiring a million dollar liability insurance, and then that brings up new questions to the business or the bigger farmer

who would be in that business. How would he -- would that be covered under his current insurance for his farming operation. It's that same kind of question, is it available?

MR. FUTRELL: And under our current cogeneration rules for large systems, we require a million dollar liability policy, that's in the existing rules for larger systems. Again, we're talking about smaller systems here.

COMMISSIONER ARGENZIANO: Madam Chair.

CHAIRMAN EDGAR: Yes.

COMMISSIONER ARGENZIANO: Is that in the current rule that is in this packet?

MR. FUTRELL: No, it's in the separate system of rules applicable to larger cogeneration systems.

COMMISSIONER ARGENZIANO: Now it's being separated out into this new rule?

MR. FUTRELL: This rule is more focused on expedited interconnection for smaller customer-owned systems.

COMMISSIONER ARGENZIANO: But Tier 3 is a larger system that is obviously now being placed in this rule where it was not in this rule before, it was in a different section, I guess, or a different --

MR. FUTRELL: That's correct.

COMMISSIONER ARGENZIANO: My concern is still there, I guess, is if these farmers, larger farmers or larger operations, larger businesses want to get in that business or

are planning to generate more energy if their current insurance is supplying that type of liability insurance. And it may be, I'm curious to find out -- I would hate to think that six months down the road when they start applying, all of a sudden they get hit with very large premiums because this is a new thing. Just a little maybe investigation. Thank you.

CHAIRMAN EDGAR: Thank you.

Commissioner Skop.

COMMISSIONER SKOP: Thank you, Madam Chair.

On that same note -- and thank you, Casey, for the clarification on that. I guess where I was kind of getting at is, generally speaking, on the larger systems, I can reasonably understand why they would require higher liability coverage limits. What I was looking more at was, and this may go to we have three tiers now, perhaps, maybe, either it could be a breakout of Tier 1 or maybe just four tiers with shifting the existing ones down. But what I was kind of getting at is perhaps on a very, very, very small home system, in the existing rule having $100,000 of general liability insurance for, say, maybe a one kW system for something that you're going to use for your pool or something that is very, very small seems to maybe be overkill.

And I know insurance rates, we're trying to control the rising prices, and I just want to be sensitive to the insurance coverage requirements and what is the appropriate

amount of coverage for each tier. And under the existing proposed Tier System, 1, 2, and 3, we're going up to 25 kW. That may be too big of maybe a catch-all category, if you will, for just assigning an arbitrary -- and I know it's consistent with the existing rule, but, again, I think we should look at, you know, if we can have some overlap with what would normally be covered under existing homeowners policy by something that is merely attached to the roof that really doesn't have a whole lot of liability coverage risk, if you will, that perhaps maybe we ought to look at how we define things to the extent that we are not having to purchase excessive insurance coverage limits for something that may be otherwise smaller and not require that. So that is merely what I was suggesting there.

Thank you.

CHAIRMAN EDGAR: Commissioner McMurrian.

COMMISSIONER McMURRIAN: Thank you, Chairman.

And maybe I missed this, but in looking at the language here about the no more than 100,000 for Tiers 1 and 2, and no more than one million for Tier 3, I guess I'm confused as to what is the minimum amount that's required for each tier. Is it really suggesting you have to have 100,000 for Tiers 1 and 2, and that you have to have one million? I mean, it reads to me that it is no more than that and could be something less. I may be just missing it.

MR. CASEY: Well, this would be a number that the

utilities would include within their standard interconnection agreements. That's a cap that we placed on them as to what they could require instead of --

COMMISSIONER McMURRIAN: Right. So they wouldn't have to require one million for Tier 3? Okay, thanks.

CHAIRMAN EDGAR: Mark.

MR. FUTRELL: Okay. Picking back up at page --

CHAIRMAN EDGAR: Excuse me, Mark. Hang on.

Yes, sir, did you have a question?

MR. SHIRLEY: Yes, just a quick comment. This issue has obviously been addressed in a number of other states that have adopted interconnection rules. And the results vary from some states putting no insurance requirements at all in the rule, other than a direction that the customer be informed that they should consider getting insurance, that it's flagged as an issue, up to specifying specific coverage limits that are really not inconsistent with what you see here.

So I think you have fairly wide latitude looking at the experience of other states. And to the best of my knowledge, lack of coverage or availability of coverage has not been an issue in other states, but I do think you have to do your homework on that and make sure that the policies written here actually do cover this.

CHAIRMAN EDGAR: Thank you.

Commissioner.

COMMISSIONER ARGENZIANO: I wasn't sure what Commissioner McMurrian had just made a point on. Was it, Commissioner, that Tier 3 did not have to go up to a million?

COMMISSIONER McMURRIAN: I think what they clarified for me and the point I was missing, I think, is that although the language says no more than one million, I suppose the utilities could still require up to one million. And I guess, perhaps, we will hear from them later on today about what they actually think would be needed. But I suppose since this would be the standard that the utilities would have flexibility to go up to that amount, just not require any more than that.

COMMISSIONER ARGENZIANO: Well, if I can add to that. My question would be if I was the person who was investing in all of the equipment, of course, I would want my own liability coverage, knowing what I own and what harm could come to me if something goes wrong. So I'm not sure it's the utility's decision how much liability should be placed upon the operator of a facility, but it seems to me that it does say no more than one million, so it would at least mean that a million is absolute -- according to the language, is absolute for Tier 3, is that correct?

MR. FUTRELL: Yes, it is.

COMMISSIONER ARGENZIANO: And, Madam Chair, the only reason I make the point is because there are questions surrounding this. I would hate to see a new market, so to

speak, come with the insurance companies now saying, guess what, Mr. Farmer, oh, you want liability insurance for this great generating plant, and now your premiums are going to go up quite a bit. I don't know if it is already incorporated into most insurance policies, and that is really my only question.

MR. TRAPP: Could I offer some historic perspective on this? As Mark has said, the one million dollar insurance requirement originates in the current Commission cogeneration rules, which were enacted in the very early 1980s, and it was an issue at that time whether or not this coverage was available. And there were many arguments for more than a million dollars, because being a lawsuit conscious nation, liability insurance, it's very important to get the right coverage. So there were arguments in the '80s about the availability of one million dollar policies in Florida, and that was the number that was selected because we felt that based on the evidence at that time that was a reasonable amount to get.

I'm not aware of any real controversy of obtaining that insurance since the '80s, and hence the reason the staff just brought that number forward for the larger systems. With respect to the $100,000 coverage, again, as Mr. Futrell has mentioned, it was discussed in some detail three years ago when we first enacted the small solar interconnection rule. And,

again, in that regard, what this rule does is just really expand the existing rule from small solar to other forms of renewable.

So the $100,000 was hashed out about three years ago with respect to its reasonableness, and that was the number that everyone agreed to. I know from personal experience, I'm not exactly sure it's the exact same coverage, but I myself carry a million dollar universal liability myself. It costs me $300 a year. I don't know if it's different for commercial, we can certainly look into it.

COMMISSIONER ARGENZIANO: And I understand that, but have you checked on how many insurance companies do include these particulars in liability coverage? That's my point. And the reason I'm saying this is because a number of years ago in the legislative process I went through this with motorcycle insurance. And everybody felt that, well, you know, it was there, it was included. And it wasn't. And then when you started placing certain legislative mandates on how much insurance a motorcycle rider would have, all of a sudden you found that, wow, the market became very interesting, and it became impossible to afford motorcycle insurance.

So I just want to make sure -- I understand the rule, and why, and why we need it, and all of that, I just don't know that many companies include that in their plans. And if they are, if they all include it, that's great, that ends the

problem right there. If not, then we could be, you know, looking at cherry picking and just some of the problems that could come out of that. But thank you.

CHAIRMAN EDGAR: Thank you.

Mark.

MR. FUTRELL: Okay. Picking back up on Subsection (b) of Page 4 of items that the utility may require the customer to take as part of the interconnection agreement. The first is the manual disconnect switch to be installed at the customer's expense to, again, help protect the system and anybody that may be working on lines. This language is taken from the existing rule. Sub 2 is an indemnification provision to hold the utility harmless from any loss as a result of operation of the generation. Again, this language is taken from the existing rule.

We then get down to Section 6, administrative requirements, where we try to lay out a schedule for the utility to respond in dealing with the customer. Again, this is the expedited section to try to give some definite time lines on when the utility must respond to the customers and process their paperwork. And also for Tier 3, if there is an interconnection study to be done, this sets a time lime for when that needs to be concluded. Again, the idea here is -- this is the real core of the expedited notion of the rule.

Section 7 is conditions for disconnect. And these

provisions are in the existing rule on occasions when the utility may have to disconnect the system. This does not prevent the customer-owned generation from self-serving, from providing to the customer's -- for the customer's needs, but it would prevent backflow to the grid in certain times. And these are the provisions that would allow the utility to disconnect the system from the system, from the grid, but it would still allow that generation to continue to operate.

COMMISSIONER ARGENZIANO: And also the failure of the consumer to maintain the required insurance coverage, so that's why I really want to make sure that it is out there.

MR. FUTRELL: Right.

Now we get into Sub 8, which is the net metering provisions of the rule. The existing rule has two provisions which allow the utility to either net meter, and allow the customer to net meter, and carry credits forward to the following month. At the end of a 12-month period, any unused credits would revert back to the utility. It also gives the utility the option of installing dual metering technology or a meter that would allow them to track the flow of electrons to and from the residence, and any electricity sold back to the grid is priced at the utility's avoided energy rate.

And as the utilities have implemented this program, they have chosen to take the latter of allowing for dual metering technology to measure the flow and pay the customer at

the avoided energy rate for electricity sold back to the grid. Our provision in this rule would, again, allow the utility to install at no cost to the customer the metering equipment required to net meter, and the key parts of these provisions are that the excess power would be accumulated, any excess power would be accumulated and carried forward to the next month, so that if the customer consumes more than they generate, any unused credits would, essentially, reduce their consumption for the following month. Those credits would be carried forward, and at the end of a calendar year the customer would be paid at the nonfuel energy charge plus recovery clauses under the customer's applicable rate schedule.

COMMISSIONER ARGENZIANO: Madam Chair.

CHAIRMAN EDGAR: Commissioner Argenziano.

COMMISSIONER ARGENZIANO: What made you decide on the 12-month period?

MR. FUTRELL: That's a typical period that is used. That's carried forward from the existing rule, and that's a typical -- usually, especially as I understand it, for photovoltaic systems, there may be some variation in their output over the year. There may be some periods where it may vary for the year, and it allows them to kind of smooth out any usage. Potentially there will be periods where they have more excess, and then other periods where they use less, for example, in the summer where there will be more customer usage.

COMMISSIONER ARGENZIANO: Madam Chair.

My understanding is that there are these types of rule in 42 states, is that correct? Do any of them pay back earlier than the 12 months to the customer?

MR. FUTRELL: I'm not sure if they do a monthly payback. Some might do that. But most of them have either -- actually, most of them do have a payback, it's usually after a 12-month period.

COMMISSIONER ARGENZIANO: Can we find out if there are any done on a six-month period?

MR. FUTRELL: Sure.

COMMISSIONER ARGENZIANO: Thank you.

MR. FUTRELL: Just to explain the rate that we're talking about paying them. The nonfuel energy is, again, the part of the bill to compensate for the utility's fixed costs of generation, transmission, and distribution. It also will be paid the recovery clauses, which include fuel and purchased power. They would pay the customer -- however, the customer would continue to pay their customer charge, which compensates for the utility's cost of metering and billing. Those costs are going to be there no matter how much power the customer generates and/or sells back to the utility. So that customer charge would be there under this proposal. But for residential customers, everything else they would be paid back at those rates for the excess generation at the end of the 12-month

period. So it's not quite full retail rate at the end of the 12-month period, but it's something slightly less than that, but it's more than what's currently paid as far as the as-available energy rate.

Now, for larger customers that are on a -- that are demand billed, we have noted in the rule that the customers, they would continue to pay the demand charge to recover those costs associated with the demand charge. Now, in Section 9 we have reporting requirements to give the Commission an idea of how the net metering programs will work and give us a sense of the potential impact as we move forward, and we have given some metrics here in Subsection 9 to try to give us some of that data over time.

Finally, in Sub 10 we've got a dispute resolution section which lays out some language so the customer will know that they can come and resolve any kind of disputes associated with the interconnection process or the net metering process.

And that concludes my remarks, Chairman.

CHAIRMAN EDGAR: Commissioner Argenziano.

COMMISSIONER ARGENZIANO: Thank you.

Just a question as to -- you know, we have a lot of people that -- it may have slowed down now with the housing market, but we had a lot of people that keep moving to Florida and building. And how would the general public know, I mean, some of them know already, of course, that this is available.

How would they know about our new rule, and if they want to incorporate that in a new building or an existing home?

MR. FUTRELL: I'm sure there are a lot of folks, and certainly in the industry, that will be providing this equipment. They will know about these programs that will be available. The solar installers and other folks who work in this industry, they will know about these. This is a hot button issue, it is critical to the industries, these renewable generators, so they will know about it.

COMMISSIONER ARGENZIANO: And I imagine those companies who stand to, maybe, generate a profit would do that. Do we do any PSAs?

CHAIRMAN EDGAR: We have done some PSAs in the past. I don't know that we have ever done one on net metering, the staff would know. I sometimes do have the opportunity to do PSAs, and obviously to work with members of the legislature, to work with their constituencies, and as we go around and have the opportunity to talk about what we're doing, but it is an important point, Commissioner. We all have been familiar with programs that are really good programs, but the people that could use them don't always know about them.

Commissioners, before we open it up even further to the next step, are there any other either specific or general comments? No. Yes, ma'am.

MS. WEBB: Karen Webb, Commission staff.

Commissioner Argenziano, we have some information dating from 2004 regarding what other states are doing, none of those address six months. We do have a listing of five that purchase monthly at an avoided cost, and those are Connecticut, Iowa, Massachusetts, North Dakota, and Texas. But we can get more updated information for you at a later time.

COMMISSIONER ARGENZIANO: Thank you.

CHAIRMAN EDGAR: Thank you, Karen.

Okay. I think what I would like to do is go ahead and push forward a little bit. We will take a lunch break in a little while, but I'm going to -- the way we have it on the agenda is to start with the net metering section, and then see how far that goes, and then at some point this afternoon then to focus more on the interconnection portion of the rule. So I'm going to draw your attention to the net metering portion at this point and kind of open it up. We do want to hear the thoughts, concerns, suggestions working from the discussion that we have had thus far and the language that we have in front of us. So I'm going to look to my left.

Susan, do you have comments, maybe, to help us get started?

MS. CLARK: Yes, Madam Chairman.

Let me just ask a question. Regarding addressing the net metering, would that be the definition as well as the section on net metering?

CHAIRMAN EDGAR: That seems very logical to me. So, yes, let's start with the definition.

MS. CLARK: Let me just start off with a preliminary observation on the rule and then go through comments on various sections, and we appreciate the opportunity to provide you the comments. I'll give you some comfort. I'm not here by myself, we do have some of the technical people, to the extent we do get into more questions about the technical aspects of the rule.

Just this preliminary observation. The draft rule does represent a departure from the existing rule on interconnection and net metering, which your staff has outlined for you. And it is also a departure from traditional utility cost-recovery and rate-setting practices. Under that traditional cost-recovery and rate setting, it would provide for recovery of costs in excess of normal business costs from a cost-causer, and that rate would be set to cover the cost of service from each class. By waiving the collection fees for generation interconnection, and for the incremental metering that's described in the rules for these customers, those costs will be shifted to other customers. And also the net metered customers will be further subsidized by other customers to the extent they are paid or credited more than excess energy.

But we also understand the recent executive orders, the statutes you have cited, and the legislation that was

passed describe a general direction being taken of encouraging the development of the renewable resources to secure the benefits from those resources and understand that that is the framework of this rule. We just wanted to make sure the impact on all customers is understood as well as the direction we want to take, or you want to take with regard to renewables.

Now, speaking to the net metering, let me just talk about sort of what I will call a technical suggestion. In your definition of net metering, you describe how it is calculated. I would simply suggest to leave the definition without the description of the calculation and the section that you do have on net metering describes how you would do that, so that if you change that calculation you don't have to go back to the definition.

I'm just trying to get to my page on the net metering. What section is net metering under?

MR. FUTRELL: Eight.

MS. CLARK: Okay. I think your staff has clarified for us, we were interested in understandings what the payment at the end of the year was, we understand that it is something less than the retail rates as opposed to the avoided energy cost, so that is a departure from there. I don't know if the other utilities might have comments that they want to offer or a different perspective on net metering.

CHAIRMAN EDGAR: Gentlemen, anybody like to jump in

at this point?

MS. CLARK: We will be providing comments after the workshop. So to the extent we need to provide more perspectives on this, we will.

CHAIRMAN EDGAR: Great. Thank you.

MS. CLARK: I think John Burnett with Progress might want to make a comment.

CHAIRMAN EDGAR: Mr. Burnett.

MR. BURNETT: Thank you, Commissioner.

Just following up on what Susan said, primarily for Progress Energy we had not really, I don't want to couch them as concerns, but three points that I thought needed to be raised. Susan mentioned, basically, in this paradigm any time that there is a fee or a cost that is waived, or a price paid above what it cost, that will be passed on to the general body of ratepayers, and we were interested in making sure that was not only a fact that was out on the table, but some of the hard questions that may flow from that.

In this instance, it may be that a more affluent customer who can afford one of these applications is subsidized by the general body by ratepayers by less affluent customers. Hard questions may arise from that, from these customers is why as a working class residential customer am I paying this; what am I getting out of it, what is the benefit to me; how is what I'm paying determined; and is what I'm paying worth the

benefit. Some questions I know we will probably get as a utility, certainly the regulator may get those, as well. Those questions, you know, in the regulative and legislative branch also present themselves as to what benefit is the subsidy intended to bring, who does the benefit enure to, how much should the subsidy be relative to the benefit, and as a policy and fairness issue, who should pay for it, how should that be distributed.

So these are questions that I think are here and are out there and just we thought it was important to lay a foundation at the beginning of this. It really sort of drives from a policy and fairness issue of what's to be done. We are not necessarily saying a subsidy is a bad thing, but those are important questions that have to be answered, I think, on the front end, so a point we wanted to make.

CHAIRMAN EDGAR: All good questions. And I appreciate those comments. And, of course, speaking just for myself, I'm hoping that as we work our way through this process that we will be able to add some transparency and have some open discussion about those questions and hopefully some of the answers or options that go along with trying to answer them. Thank you.

And let me just mention that the microphones here along the side are live, too, is my understanding from Chris, and so if we have some discussion back and forth, please feel

free to use these chairs, and I'll try to remember to look over in that direction, as well.

Yes, sir.

MR. GRIFFIN: Thank you, Commissioners. Steve Griffin with Beggs and Lane on behalf of Gulf Power Company.

I would just echo Mr. Burnett's statements, progress Energy's. Three areas of concern for Gulf Power relate primarily to the cost, the payment for the excess energy, and whether that's going to be at the avoided cost or retail or somewhat less than retail. The billing or the crediting on an annual basis versus a monthly basis is also an issue. And for Gulf, for administrative efficiency, we would submit that it should be on a monthly basis.

And then another issue that we really don't want to get into too deeply at this point, but it's just the renewable energy credits associated with the energy that is generated from these projects, and how are those going to be treated, ultimately, whether those are going to the utility or whether those are going to go to the customer.

CHAIRMAN EDGAR: Thank you.

Commissioners?

Yes, sir.

MR. ASHBURN: Bill Ashburn with Tampa Electric.

I won't parrot the things that they all said, but we agree with that, as well. And I think it's important, as we go

forward in the rulemaking, as you're looking at potential subsidy items that we have been discussing and that are in the rule, it's important to calculate and know how much the subsidy is, so that not just now what it is particularly on each one, but as we go forward. As you know, another activity, you're looking at RPS which is encouraging more and more of this. To the extent it is a small subsidy now for ratepayers because there's not too many of them, as we are anticipating many, many more of these, it could become a larger dollar figure. So we need to be anticipating those costs and seeing what the impact is going to be.

CHAIRMAN EDGAR: Yes, sir.

MR. KEYES: Hi, I'm Jason Keyes with the Interstate Renewable Energy Council. We're DOE funded. We go to states who are going through rulemaking such as this, or participate in work groups on net metering and on interconnection standards. So seeing that we are going to be talking interconnection standards in the afternoon, we will have comments on that, but I will just address net metering for now.

First, I'd like to introduce two other people. Before me in my current position at IREC, Chris Cook used to do that work for the past four or five years, was involved in FERC's development of small generator interconnection procedure and worked in a couple dozen states. And to his left is Mike Sheehan, he used to be the T&D manager for Puget Power, which

is the biggest utility up in Washington state, and he spent three years working on the work group that developed the 1547 standard for inverters. So, they're useful resources to you. Mike is now working for IREC, along with me, so it's an independent voice, we are not funded by the solar energy.

CHAIRMAN EDGAR: Jason, I'm sorry, would you tell me the name of the organization again? IREC is what?

MR. KEYES: It's the Interstate Renewable Energy Council.

CHAIRMAN EDGAR: Thank you.

MR. GRIFFIN: So going into the net metering. First, I will just give you two points of background, one is that there is a perception that solar energy systems, in particular, are fairly small and go on residences. And last year the commercial systems were, there was more power in commercial systems worldwide than in residential systems, and I believe that's true in the U.S. now, as well. So that part of the industry is taking off, and Chris Cook is now at SunEdison running regulatory affairs there. They are one of the biggest installers of large commercial system. So it does matter to have standards that go far beyond things that go onto homes.

Home systems are rarely over 10 kilowatts, and there are lots of commercial systems that go up to 100 kW. But there are increasingly many, many systems that are going in the half megawatt to megawatt stage, and now beyond a megawatt. So the

standard in the past few years has been to go up to a two megawatt standard for net metered systems. So at a megawatt you would be kind of behind the curve. Right now Colorado, Illinois, New Jersey, Delaware, Maryland, Connecticut, and Oregon, I believe, are all at two megawatts. Pennsylvania is at 5 megawatts; New Mexico is at 10 megawatts; and there are several in the one to two megawatt range. So it makes sense to go ahead and at least go to two megawatts now, or you will be revisiting it in a few years to be asked to address that. And certainly you can go beyond that.

You want to be careful about not having a gap in jurisdiction. FERC doesn't necessarily take jurisdiction over everything that's over ten megawatts or anything, so it is useful to have -- this is going into interconnection standards more, but I'll just mention it, that it's worth considering larger systems. For instance, all the biodigesters you're talking about, but you may not want to take on all of that under this rulemaking, you may want to handle that in a separate docket.

A couple of other points. The insurance, I'm not sure where it falls. You would probably cover that under interconnection standards, but since there has been so much discussion about it, I thought I would just bring it up now. I just spent the past couple of weeks talking about insurance with the New Mexico work group, and they finally settled at an

insurance requirement that starts at 250 kW and is capped at a million dollars for systems above that. And I actually got -- what led us to that number was input from both of these gentlemen. First from Chris Cook saying that the larger systems, yes, they are fairly sophisticated owners, and they can deal with the insurance requirements and all the issues involved there. If you get below one to 200 kW, you're talking about less sophisticated owners, and they are going to spend a lot of time scratching their head looking at their insurance policy, like you addressed. And that's enough to hinder development of those medium-sized systems.

And then from Mike Sheehan, he pointed out that, well, there is almost no chance of doing any damage to the utility grid from systems under two or 300 kW. And when you are requiring insurance, the most likely thing to go wrong would be the customer's own facility, and if he chooses not to insure it, that may not be very vise. It might make sense to do that, but it's not something you need to tell him or her to do, they can decide on their own whether they want to insure their own equipment.

So what you are really looking at is, well, what damage could they do to the grid. And a small system just isn't going to do damage to the grid. If there is any damage, it is going to be miniscule, on the order of a few thousand dollars, and there is no needed to have a requirement for

large amounts of insurance or to put up a barrier for what is almost a nonissue.

Let's see. Also, another point is in the definition of systems, in the current rule -- by the way, I share Ms. Castille's appreciation that this a wonderfully readable document. There is more that should probably be thrown into it, but it's nice to be able to look through it and understand what's going on. On Page 1, on Line -- I'm looking at the new version, the definition of customer-owned renewable generation, it's Line 11. A lot of the larger systems now are not necessarily owned by the utility customers. For instance, SunEdison's model is to go out and own a system on somebody's else store.

They just got a contract to build large systems on top of Wal-Mart stores. So it's on top of the customer Wal-Mart, but it is owned by SunEdison. So instead of saying a customer-owned renewable generation you could say customer-sited generation, or customer-operated, or the other way it is done is to talk about generating facilities and interconnection customers, so Sun Edison would be the interconnection customer.

Another point is on Page 7 on Line 9, we're talking about the dispute resolution, and a lot of the disputes that can arise in the process of going through the studies or anything else are fairly trivial. You're talking about

decisions that are on the order of thousands of dollars, not hundreds of thousands of dollars. And to resolve those disputes by coming before the Commission is an overkill, and you've got a lot to do. It's helpful when there is some intermediate step in there where you have a Commission-appointed facilitator or a technical master that can address technical issues and say, yes, you do need a fuse there, or, no, you don't need a fuse there. And that, again, is getting a little bit more on the interconnection issue. But, in general, for disputes on net metering or interconnection it would be nice to have a simple low cost, quick approach.

And, finally, for the application process, on Page 4, Line 21, it says that the utility shall provide the application within five days. And the standard is that the application is on-line, or it's readily available, it's not something that you wait five days for, you just get the application. So that's the general comment. And certainly if you have technical questions, Chris also was an T&D engineer, and they are both great resources.

CHAIRMAN EDGAR: If I would, let me see -- Commissioner Skop, did you have a question earlier?

COMMISSIONER SKOP: Yes, Madam Chair, thank you.

Thank you, Mr. Keyes, for your insight. With respect to your recommendation with respect to that there should be a

two megawatt standard instead of merely a one megawatt. I mean, I had the same general concern originally to the extent that wind turbines now, large wind turbines exceed one megawatt. And, you know, to meet future growth are in that area, but in speaking with staff, it came back to the issue that Progress and Gulf and TECO have mentioned with respect to how does not going to that higher standard further accentuate the inequities and fairness that the utilities have spoken to, to the extent that you are getting away from net metering and almost being a quasi-generator, if you will. Because, again, if you were able to deliver excess power at rates that are favorable, why would you not, why would that not cause migration into that area to take advantage and leverage what would be otherwise, perhaps, inequitable to the general body of ratepayers at large?

MR. KEYES: I think I can answer that decently, but I just got tapped on the leg by the person who handled it for years. I'll let Chris take that.

MR. COOK: Yes, Commissioner, Chris Cook. I'm here on behalf of SunEdison as well as the Solar Alliance and National Consortium, the major photovoltaic manufacturers and integrators in the U.S. On the larger-sized systems, SunEdison's typical system size ranges from 100 kilowatts up to 2 megawatts. A Wal-Mart Store will support, for the bigger box size, between one and two megawatts on their rooftop. And we

have the opportunity to install a system, be it in a Wal-Mart, Staples, Kohl's, for some of our enterprise customers, we like to maximize the utilization of their roof.

In terms of the net metering, the customer needs net metering as a tariff option in order to be able to install the system without having to change their utility tariff, which invariably becomes a virtual complete bar to the customer going forward. If we go to a Wal-Mart, for instance, and say we can install the system on your rooftop, but you will have to change your utility tariff, they quickly drop the notion of installing that system.

As for the, I'll phrase it as the alleged cross-subsidy, because I don't think there has been a credible study done anywhere in the U.S. that there is any cross-subsidy from a net metered customer, these larger systems typically do not export to the grid. When we size a system for a Wal-Mart, or a Kohl's, or a Staples and utilize their full rooftop, it typically supports between 30 and 40 percent of their electricity usage. Since these retail operations are typically running, they are open for business during all daylight hours, they consume every kilowatt hour that we generate on site, and do not export to the grid. So the notion of -- if you assume, for the sake of discussion, there is some cross-subsidy for giving a full retail credit for kilowatt hours going out to the grid, it's not the large systems that put those kilowatt hours

out to the grid, it's the smaller systems that need that balance and that option.

Now, there may be an opportunity where, for a Wal-Mart or a Staples they are closed for maintenance for, say, one week out of the year, or one week every five years, in that certain brief period they would export to the grid and that's why they need that export capability and the net metering, but it's a very tiny amount that they would do and a very rare circumstance.

COMMISSIONER SKOP: Thank you.

Just to follow-up, Madam Chair.

So are you suggesting that merely there should not be a size limitation to the extent that the capacity factor associated with, I think, say you put a two megawatt solar array on top of Wal-Mart, but the capacity factor, what it would actually generate would only be, essentially, sufficient to meet the needs of what was being consumed by that physical store-front location, to the extent that there wouldn't be an excess that would be delivered out to the grid, is that what you are kind of suggesting?

MR. COOK: That's right. But having the opportunity to be able to deliver to the grid is key. Because when you go through the contract with Wal-Mart, their lawyers always ask the "what if," what if we do have a day where we are producing excess. And it is very easy to have the retort to say, a state

like Florida has net metering, you will get a full retail credit. We don't expect that ever to happen, but you'll get a full retail credit. So that is very important from the customer's perspective to not losing, frankly, a single kilowatt of their production from solar. But I'm addressing it as a policy matter and this concern about potential for cross-subsidy, the kilowatt hours produced by those larger systems are going to be very, very minimal.

COMMISSIONER SKOP: Thank you.

MR. KEYES: Could I add one comment on there?

If I was to take a guess, I would guess that something like 99 percent of the solar energy that gets produced on rooftops isn't being fed back into the grid, it's offsetting the load. I mean, it doesn't meet the full load of the building it's on. So it's just those rare instances when you happen to be fairly low on your load, and it's a beautiful sunny day, then you're getting a little credit.

And a way to analogize is to look at conservation. This is sort of like conservation. If somebody came in and insulated their building and reduced their consumption by a great deal each year, does the utility have a right to say, well, gosh, you're using less power than you used to, and everybody else has to pick up the slack, so we're going to charge you more. So creating your energy is essentially the same thing as saving the energy, so that's the only point I

will make on that.

CHAIRMAN EDGAR: Commissioner Argenziano.

COMMISSIONER ARGENZIANO: Thank you.

Two things. One, when you were describing -- it was interesting before and something just occurred to me and I didn't know the answer to it, so I'm going to ask. You had mentioned under the liability and then the insurance component that we were talking about that sometimes in these very small systems, or hardly ever on the small systems could they really damage the utility, which I'm glad to hear that, because you don't want neighborhoods going out of electric. But can it work the other way around, can the utility damage the small systems?

MR. KEYES: That's probably a lot more likely. And it's not necessarily the utility's fault.

COMMISSIONER ARGENZIANO: It's not intentional, I don't mean that at all.

MR. KEYES: Certainly if there is a lightning strike, you want surge protection in your inverter. If the power line -- I should probably let Mike Sheehan handle that question, but if a higher voltage line crosses a lower voltage line, and there is a surge into a residence or a business, it's going to overwhelm the inverter and it is going to damage the system.

COMMISSIONER ARGENZIANO: Sure.

MR. KEYES: So it depends on whose fault that is. If it was the utility's negligence, then, yes, potentially that is an issue. And I don't know of any situation where a solar system has damaged the utility grid, anywhere. And Germany has half the world's systems, and as far as I know there is no damage that has occurred in Germany. And I have talked to Germans about that.

COMMISSIONER ARGENZIANO: Okay. And the second question is on the dispute resolution, now I understand what you're saying, is there can be things that maybe could be arbitrated before coming to the whole Commission, but there has to be something in place that if the arbitration is not successful, whether for the utility or for the consumer, that it can still come before the full Commission. Have you seen that written up that way where we're saying, you know, if the consumer is not happy with the arbitrator's results, or the utility is not happy, then it can come before the Commission? Is that what you are really trying to get to, because --

MR. KEYES: Yes. And, for instance, the FERC rule, the SGIP (phonetic), actually in the rule is a phone number and an e-mail address for that facilitator, and I forget the term for the facilitator, but you can call them up, and they'll look at both sides of the issue and give just a quick preliminary ruling within days. And the party that didn't prevail may not like that and may then go to FERC. But it is an expensive

process, and basically nobody wants to go -- nothing personal, but nobody likes to go in front of the Commission, it takes a long time.

CHAIRMAN EDGAR: I was hoping you were enjoying it.

MR. KEYES: It's wonderful.

CHAIRMAN EDGAR: Commissioner Skop.

COMMISSIONER ARGENZIANO: Thank you, Madam Chair.

Just one quick follow-up with respect to, again, focussing on removing the one megawatt standard and going to a higher standard as he suggests. In the scenario where you are actually generating more than you would be consuming, and I think that goes again to the crux of the concerns that the representative utilities have raised, would you agree that in that instance that for that excess delivery, you would be receiving energy payments at all-in rate as opposed to what a wholesale generator could expect to receive for the same generation? And perhaps if the utilities had previously commented, you could maybe add some additional discussion in that regard.

MS. CLARK: My answer is yes.

MR. KEYES: When you are talking about the sort of scale, especially for the smaller systems, sort of the sizes you're talking about, the excess generation is usually a fairly small number, and typically you don't size a system so that you are producing any more in the year than you are consuming. So

the excess generation in any one month is fairly small. In fact, when you're talking about systems down in the 25 kW and less range, there is a lot more cost to the utility preparing a bill to deal with that and monitoring that than there is to just saying roll it over and go to the next month.

MR. COOK: If I might also expand on it. Again, Chris Cook.

The issue, I think, is already addressed in part in your proposed rule, which says that if you have a net annual excess of kilowatt hours, you're paid at what I'm interpreting the rule to say is avoided cost. That avoided cost has presumably been determined to be the fair cost for excess generation that comes back onto the grid, and so, inherently and by definition there is no subsidy in that amount. That is valuable power, and the utility is paying what that power is worth.

So the only issue is in this excess that you might have either on an individual day, or excess at the end of the month that you carry over and you do a kilowatt hour swap, you swap those excess kilowatt hours for consumption in the subsequent month. That, I think, again, is going to be a very limited amount. What some other states have done is actually put a cap on that, one or two percent. In California it's five percent. That is how I think you will guarantee that to the extent there is any cross-subsidization, that

cross-subsidization is de minimis.

I would urge that if the Commission decides to go that route and put a cap on the total aggregate amount of net metered generation in the state, that that dovetail with whatever other policy goals you have. So if you are trying to get, for instance, I know my colleagues have proposed a two percent distributed photovoltaic solar standard in the state, the new net metering rules would accommodate two percent of energy generation coming from net metering. And I think by doing that this problem of what I think is actually a future problem of a run-away situation with all customers net metering, you cap that and can go back and revisit it and have some solid data as to whether there is any cross-subsidy.

I would note that California, I think it was last year, upped their aggregate net metering limit from .5 percent to 2.5 percent. That was done by the legislature. At that time there was no indication that there was any cross-subsidy coming from that .5 percent of customers that were net metered. The value in terms of peak generation that they put onto the grid, the value in terms of off-set T&D requirements, offset distribution infrastructure, all of those are benefits that accrue from the net metering customer that offset any of that potential cross-subsidy.

COMMISSIONER SKOP: Thank you.

CHAIRMAN EDGAR: Thank you.

Commissioners, any further questions at this point?

Mr. Burnett.

MR. BURNETT: Thank you, Madam Commissioner.

Sorry, not to belabor this point, but, Commissioner Skop, I think you are all over the real issue and the concern there. I think as a prudent business person, I'm going to look and say if I can sell power at a wholesale rate for X dollars, but I can go up to one megawatt or two megawatts and sell power at a more advantageous rate, while I may currently not have an application that produces excess, I'm going to be incented to, maybe, buy another one and say this is a good business move for me, and if I could see a megawatt for an increased price, I'm going to do it just as a prudent business operation.

So I think you are exactly right, by having a megawatt limitation, if you're going to allow something other than avoided cost, you're at least setting a threshold to where you're not having people incented to ignore what I believe you were saying, the wholesale paradigm and go here and try to effectively, I would call it almost game the system to get a higher rate for something. It's simple mathematics. And I think it would be a good business decision that certainly I would do, if I saw it available.

CHAIRMAN EDGAR: Anyone else on that point at this time?

Mark.

MR. FUTRELL: Chairman Edgar, I have a question, and maybe Wayne could help us with this. In those states where you cited that allowed for larger systems to net meter, for the accumulated generation at the end of a 12-month period, or if it is a monthly period, at what rate are those net metering customers paid?

MR. KEYES: I think it's often at some sort of avoided cost if their generation is more than their load at the end of the year, and I'm not absolutely sure. I think it varies from state to state. That's usually not a big issue that we debate a whole lot.

I remember Adam Browning from Vote Solar talking about net metering, and he was saying that last point, don't worry about it. You are asking for -- you don't need to worry too much about that last bit. Most customers size their system so that they don't have any excess at the end. And actually their proposal is that that excess be paid at the retail rate going into a fund for low income customers, which would be fine.

MR. SHIRLEY: I would add to that that some states just actually -- the customer gives up the energy, that there is no payment at all for excess energy as one option. But I also want to expand a little bit on something Chris touched on. The whole area of trying to understand and calculate these subsidies, it's really not as straight forward as the

discussion so far might lead you to believe, partly because avoided costs typically are average numbers, and the actual real avoided costs in a given hour can be above or below that average. And so if you are paying an average avoided cost rate for excess energy, what you are saving on peak you are likely generating net benefits to other customers.

So, while intuitively you think, well, if I'm not paying application fees and then they are getting some payment at avoided cost for excess energy, that there is a subsidy. In fact, it may be the opposite. In fact, the other customers are benefitting. And it's very system specific both in terms of the operating characteristics of the system -- solar, for example, tends to be highly coincident with on-peak consumption, whereas methane digesters run sort of like a base load unit usually and operate at all hours, and so they look more like an average unit.

And it is also location specific. DG deployed on systems that are strategically located can avoid or defer investments in distribution and transmission facilities, and those values are real to the customers. So you really have to calculate all of these sort of on an individual basis to really understand them, and I think at some point you have to be comfortable with the overall public policy objective of deploying these resources, and accepting some of this averaging, and sort of acknowledging that there could be

subsidies, but there also are negative subsidies, if you will, and on average are the customers better off, or is society better off.

And then looking a little further down the road in a carbon constrained world, the carbon value of these resources tends to be fairly high, and that value should be captured in that subsidy calculation, as well, so that you really understand the net benefits you are delivering to everyone on the system.

CHAIRMAN EDGAR: Thank you. Very quickly because we want to move on.

MR. COOK: Yes, Madam Chairman. Not on this cross-subsidy issue, just one other point related to net metering. SunEdison typically sales through renewable energy credits or certificates or the carbon credits have come out from the systems that we install and operate, or, in some cases, like Wal-Mart, Wal-Mart has got a global carbon reduction strategy, so they retain those carbon credits.

One thing that I noted was missing in the rule was a clear indication that the customer retains any renewable energy credits or certificates even if they are net metering. Because to do otherwise puts the customers in this choice of saying I either have to pick net metering or retain my credits, and that becomes a major obstacle to doing the projects.

CHAIRMAN EDGAR: Thank you.

Okay. Folks to my right, would you like to please share some comments with us on the net metering proposed language and/or the definition.

MS. HERSHEL: Chairman Edgar, I'm Michelle Hershel with the Florida Electric Cooperatives.

I don't know if you want me to say my comments now, mine really go to the first paragraph on the application and scope of the rule.

CHAIRMAN EDGAR: Okay. Let me get there.

MS. HERSHEL: You skipped all that.

CHAIRMAN EDGAR: Sure.

MS. HERSHEL: Okay. Again, I'm Michelle Hershel with the Electric Cooperatives. The electric cooperatives in Florida support the Commission's efforts to establish a uniform interconnection standard for customers who generate electricity from on-site renewable technologies. The co-ops are committed to promoting the development of small renewable generation while at the same time minimizing the cost of power to our customers.

While we generally agree with most of the underlying concepts of the proposed rule, we feel the Commission does not have the jurisdiction to adopt the proposed rules for cooperatives. Section 366.914 and 366.821 expressly limit the PSC's jurisdiction for those sections to cooperatives that had annual sales to retail customers greater than 2,000 gigawatt

hours as of July 1, 1993.

Therefore, we respectfully request that the last line of Paragraph 1, which reads, "This rule applies to all electric utilities as defined in Section 366.022," be changed to, "This rule applies to each investor-owned utility and each municipal electric utility and rural electric cooperatives whose annual sales as of July 1, 1993, to retail customers were greater than 2,000 gigawatt hours."

In support of this amendment, there are at least three reasons that we should not be in this rule, and the first is jurisdiction. It is important to note that the existing Rule 25-6.065 on the interconnection of small PV systems only applies to IOUs. While cooperatives have relied on this rule for guidance when implementing their own interconnection policies, we are not aware of any instance where the Commission has attempted to assert jurisdiction over cooperatives interconnection policies, and this Commission did not attempt to apply Rule 25-6.065 to cooperatives or municipals.

The proposed rule includes additional statutory authority. However, the new sections cited, 366.91 and 366.82, expressly apply only to utilities that meet the Florida Energy Efficiency and Conservation Act, also known FEECA threshold, which, again, is annual sales to retail customers greater than 2,000 gigawatts as of July 1, 1993. These new sections would extend the rule's application only to FEECA utilities, and,

therefore, the proposed rule should only apply to FEECA utilities.

Even if the PSC had jurisdiction over cooperatives, we believe the proposed rule is inconsistent with the expressed legislative directive that payments to customers should be at a utility's avoided cost. Section 366.914 requires a purchase contract to producers of renewable energy containing payment provisions for energy and capacity which are based upon the utility's or cooperative's full avoided costs as determined by the governing body of the municipal utility or cooperative. The statute does not provide an exemption for renewable energy generated by small customer-owned renewable generation.

And, lastly, cooperatives also have potential contract issues with regards to net metering. Every distribution cooperative in Florida purchases wholesale power pursuant to an all-requirements contract either with a G&T cooperative, an IOU, or an independent power producer. And the distribution cooperatives are contractually obligated to purchase all or a vast majority of their power from their all-requirements provider. Since net metering service results in the sale of energy from the consumer to the utility, net metering service may be inconsistent with the wholesale power contracts between distribution cooperatives and their power providers.

And for these reasons we respectfully request that

you amend this proposed to apply only to FEECA utilities.

CHAIRMAN EDGAR: Thank you, Michelle.

I think what I would like to do, watching the time, is go ahead and take some comments from our friends with the municipals, and then see if there are other comments on the net metering portion. And then before we have too much of a low blood sugar moment in the entire room, we will take a lunch break, and then come back and we can have some discussion and questions about the points that Michelle has raised and others, and then go into the interconnection portion. Let's try it that way and see if it works.

Mr. Bryant.

MR. BRYANT: Thank you, Madam Chairman. I'm Fred Bryant on behalf of Florida's 33 municipal electric utilities.

As an overview, I would like to suggest to the Commission that they consider a separate docket or a separate rule session for the municipal electricity utilities. I think the co-ops would concur in that, but I do not want to speak for them. And the reason I suggest a separate docket and a separate rulemaking proceeding is because as you have heard and I will elaborate more on, there are clear jurisdictional differences between the Commission's jurisdiction over the investor-owned utilities, which is virtually a total jurisdiction over rate structures, rates, terms and conditions of service, safety, et cetera, or as the Commission is well

aware of, 30 years of history of having significantly less jurisdiction over the municipal electric utilities and the rural electricity cooperatives, primarily in the area of rate structure jurisdiction, but not rate jurisdiction, not jurisdiction over terms and conditions of service. And it makes it a very difficult situation both for the Commission and the municipals and the co-ops when we approach this type of rulemaking that is founded mostly in the total jurisdiction of the Commission.

I have numerous detailed comments on each line of the proposed rule that demonstrates why the proposal as written cannot, under the Commission's jurisdiction, apply to the municipal electric utilities and the co-ops, and I would rather not go through that detailed line-by-line discussion, because I recognize that the staff from the get-go did wear their total regulator hat, did utilize an existing rule applicable only to the investor-owned utilities, and, therefore, I'm not critical of the staff's efforts nor the work product we have to deal with today, but it does point out that when by requirements the staff must take the very, very broad jurisdictional hat that they wear for investor-owned utilities, that immediately if you include the municipals and the co-ops within that work effort, creates a great deal of wordsmithing problems in those rules.

And, therefore, I think that if we would agree that whatever the Commission's jurisdiction is, whatever we ought to

be doing in this state as far as net metering and renewables, that when you look at the municipals and co-ops, because of the jurisdictional issues at this point, that we must approach it in a different method. I point to that when we face this same problem when the Commission went to the storm hardening and wood pole inspection dockets rulemaking last year. And I think that the staff recognized very quickly the appropriateness of having a separate rule docket and rule for the municipals and the co-ops. I might point out that that storm hardening rule is in place for the municipals and the co-ops. There are no intervenors, no appeals, no hearings. We have filed our programs, we have implemented our programs, and you no longer have to worry or spend your time and effort on us.

And I think that was a remarkable insight on behalf of your staff to realize the little guys, they are different, there are a lot less issues with the little guys, and we shouldn't be in here interfering with and making more difficult your proceedings dealing with the investor-owned utilities. And we want to stay out of the investor-owned utilities rulemaking, and I would think that you would want us to not be present during the rulemaking proceedings.

CHAIRMAN EDGAR: You're always welcome.

MR. BRYANT: Thank you, Ma'am. I sometimes, as you know, refer to the Commission's jurisdiction over the municipals and co-ops as we are the bastard children at the

family reunion. We have to be there, but sometimes you don't want us to really speak up.

So I take that as sort of the guiding principle that the legislature created in 1975. I was there during that process and had something to do, fortunately or unfortunately, with the wording of that statute. And I think that that is sort of the problem that you have to deal with.

Now that I have given you those overarching comments, let me just give you some practical comments. Size. Our municipal utilities range from JEA, which I would say is a very large sophisticated utility, to some very small utilities which I would not say they are not sophisticated, but they are very small. And let me just give you an example: Blountstown, an 8.5 megawatt peak load last year, 8.5 megawatts; Bushnell, 6.7 megawatt peak load; Chattahoochee, 7.4 megawatts; Havana, 5.9 megawatts; Moore Haven, 3.4 megawatts peak load; Newberry, 7.3; Williston, 7.7.

Well, what is the point of that comment? Well, this rule as written talks about net metering up to one megawatt. Can you imagine a one-megawatt renewable system on an 3.5-megawatt system? That would play absolute havoc with that system. So I don't know if the cutoff is 10 megawatts, I don't know if the cutoff is the FEECA utilities, which are OUC and JEA at 2,000 gigawatt hours in 1993, but certainly there is and should be a cut-off as to the requirements that are in your

current rule of one megawatt based upon the size of the system.

A second practical issue, contract issues. Our smaller systems, most of our smaller systems either provided their total all-requirements, we call it all-requirements contracts, either by the Florida Municipal Power Agency or by the incumbent investor-owned utility, primarily Progress Energy. The contracts that the Williston, the Bartows, the Chattahoochees, the Quincys, which are all-requirements customers of Progress Energy, which is a Federal Energy Regulatory Commission regulated contract, it's on file there, that's the agency that approves those contracts, that's the agency that regulates those contracts, that's the agency that regulates the rates of those contracts, has a very specific contract term in those contracts, and it says to those municipal utilities, you must buy all of your requirements from Progress Energy.

Now, that's not an unfair term. That has certainly been an arm's-length term, but it is a standard all-requirements approved contract that is applicable to those systems and those types of systems all over the country that has a wholesale contract that the Federal Energy Regulatory Commission regulates.

Well, what is the practical problem? Well, the practical problem is when you have a renewable resource come into one of those communities and says, okay, under net

metering you shall now buy the excess from us, those municipal utilities have to immediately say, "Well, time out. We cannot by contract do that because our contract with Progress Energy or FPL prohibits that."

In addition, 15 municipal electric utilities have signed a very similar contract with the Florida Municipal Power Agency. The Florida Municipal Power Agency is a wholesale power supplier for those cities. Those cities own the Florida Municipal Power Agency. That contract that they have signed says, "City, you will buy all of your requirements from the Florida Municipal Power Agency." And the reason for that provision is the Florida Municipal Power Agency then has the contractual obligation to build all generation resources or contract for all generation resources for those cities.

The Florida Municipal Power Agency in fulfilling its contractual obligations then issues revenue bonds, municipal revenue bonds to build those generation facilities. We have issued close to one billion revenue bonds at this date for those cities. The FMPA cannot, like municipalities themselves, put a mortgage on those facilities to raise the money or borrow the money. It takes the contract, the all-requirements contract which generates revenues and pledges those revenues, the revenue stream, because they are called revenue bonds, to the bondholder in order to borrow the money to pay for constructing those facilities. And we actually deliver those

original contracts to the bondholder who holds that contract, and thus holds the revenue stream and has the contractual commitment to the bondholder that those cities will buy all of its power from FMPA, and thus all the cities revenues for our power are pledged to that bondholder for the benefit of repaying their bonds because they loaned the money to the utility.

Not only that, have we pledged those contracts to the bondholder, we have insured those contracts with the major debt insurance, Fiji, AmBack (phonetic), and part of their insurance requirements when they insured that payment stream, that is, insured our credit, was those revenue streams would be unimpaired.

So if you think about the contractual problem, you might say, well, what is a small photovoltaic system here, and one there, and another one over here, why would that really impact the revenue stream. Well, when you start adding up the megawatts it soon very quickly impacts the revenue stream. FMPA for those all-requirements contracts, FMPA only has a 1600-megawatt system. It doesn't take many one megawatt photovoltaic renewable source or whatever source on a system selling into that system that that revenue stream quickly becomes impacted.

The actual statutory jurisdictional issues --

CHAIRMAN EDGAR: Mr. Bryant, I have to say --

MR. BRYANT: Yes, ma'am.

CHAIRMAN EDGAR: -- you're wearing me down. I say that with all respect. I'm sorry to interrupt, but I think we are going to let you be the cliff-hanger, and break for lunch, and then come back and certainly we will recognize you for your further comments, and the others that are with us, and have some questions and discussion and then go into the interconnection portion of the rule.

So, Commissioners, how about 2:00 o'clock? And we're on lunch break until 2:00 o'clock.

(Lunch recess.)

STATE OF FLORIDA)

: CERTIFICATE OF REPORTER

COUNTY OF LEON)

I, JANE FAUROT, RPR, Chief, Hearing Reporter Services Section, FPSC Division of Commission Clerk, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

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

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 10th day of September, 2007.

Linda Boles /for

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