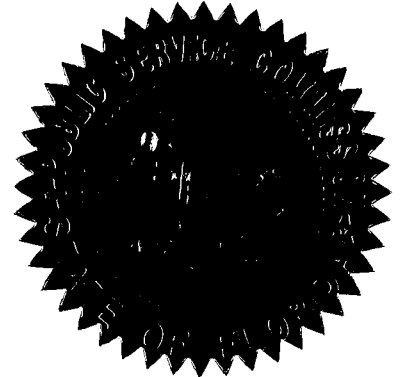


BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

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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VOLUME 1

Page 1 through 100

PROCEEDINGS: STAFF WORKSHOP
DATE: Monday, October 15, 2007
TIME: Commenced at 9:30 a.m.
PLACE: Betty Easley Conference Center
Room 148
4075 Esplanade Way
Tallahassee, Florida
REPORTED BY: LINDA BOLES, CRR, RPR
Official FPSC Reporters
(850) 413-6734

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FLORIDA PUBLIC SERVICE COMMISSION

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FPSC-COMMISSION CLERK

1 APPEARANCES:

2 GORDON HANSEN, Homeowner.

3 BILL TOTH, All Source Energy.

4 SUSAN CLARK, FPL, Gulf, TECO and Progress Energy.

5 BILL ASHBURN, TECO.

6 BILL POPE.

7 JASON KEYES, Interstate Renewable Energy Council.

8 DELL JONES, Regenesiis Power.

9 CHARLES GILLIS, Electricity Link.

10 RICH ZAMBO, Renewable generators.

11 BOB REEDY, Florida Solar Energy Center.

12 LEON JACOBS, Southern Alliance for Clean Energy and
Natural Resources Defense Council.

13 JOHN HOLBROOK, Elliott Energy Systems.

14 GWEN ROSE, Vote Solar.

15 YANN BRANDT, Advanced Green Technologies.

16 MARK FUTRELL, BOB TRAPP, ROSANNE GERVASI, CAYCE
17 HINTON, KAREN WEBB, CRAIG HEWITT and BOB GRANIERE,
18 Florida Public Service Commission.

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P R O C E E D I N G S

1
2 MR. FUTRELL: Good morning. If everybody could take
3 their seats, we'll get the workshop started. I'd like to
4 welcome everyone to our final staff workshop on interconnection
5 and net metering rules. And before we get started, I'd like to
6 ask Ms. Gervasi to read the notice.

7 MS. GERVASI: Pursuant to notice, this time and place
8 has been set for an undocketed rule development workshop in
9 regards to interconnection of small photovoltaic systems, net
10 metering of customer-owned renewable resources and
11 interconnection of customer-owned renewable resources.

12 MR. FUTRELL: Thank you. Just some housekeeping
13 matters before we get started. There are sign-up sheets in the
14 back on either side; if you would make sure you sign that
15 before you leave today so I'll have a record of your
16 attendance.

17 Also, on either side here we've got handouts, we have
18 the agenda, the draft rule that was distributed on October 5th,
19 as well as a letter that we received that Mr. Steven Dan
20 requested be made available to the parties. He is unable to
21 attend, and we told him we would include that in the record and
22 also make it available to the, to the folks here today.

23 Also, the workshop is being transcribed. So please,
24 if you have comments to make today, please come to a microphone
25 and identify yourself for the court reporter before you speak.

1 That will help her tremendously.

2 As mentioned, staff distributed revised draft rules
3 on October 5th. These revisions were based on comments we
4 received at the workshop and in your written comments that we
5 received. We're going to walk you through this morning a
6 summary of the changes that were made to the rule, and then
7 we're going to go through the rule line by line taking
8 questions and comments.

9 Now as we discuss the draft, it will be very helpful
10 to staff if you have changes you want to see made to the rule,
11 that you make those in explicit rule language. That will be
12 most helpful to us.

13 Now looking ahead, the transcript for this workshop
14 is due October 19th, and we're going to request that comments
15 be made to us by October 26th, Friday. Our schedule going
16 forward will be that we will revise the rule as needed based
17 upon the comments today and in the written comments, and we
18 will submit the revised rule to the folks in legal,
19 Ms. Gervasi, on October 31st.

20 Now following that, we are going to anticipate going
21 to an Agenda Conference, taking the rule to the Commissioners
22 on December 18th where they will decide whether to propose a
23 rule. So, again, because of the compressed time schedule we're
24 under we really need specific rule language changes that you,
25 that you want to see made and preferably today.

1 Now prior to going to agenda, the Commissioners
2 proposing a rule, we have to perform what's called a statement
3 of estimated regulatory cost or a SERC. And Mr. Craig Hewitt
4 is in charge of performing that analysis, and Craig is going to
5 give you a summary of what will be involved in that. Craig.

6 MR. HEWITT: Basically after we get the final draft
7 rule, we send that out with the data requests, and we like a
8 real fast turnaround on that, if we can get it, on the cost and
9 benefits of the rule. Thank you.

10 MR. FUTRELL: Thank you, Craig.

11 Now I want to ask Mr. Hinton and Ms. Webb to
12 summarize the changes in the draft. And then after they go
13 through their summary, we'll start going through the rule line
14 by line. So Cayce.

15 MR. HINTON: Thanks. For the record, it's Cayce
16 Hinton, Commission staff.

17 In a broad review, let me first point out that the
18 provisions addressing interconnection are sections or
19 subsections (1) through (7). And since the last workshop some
20 language has been moved to make the rule more consistent and
21 read a little better. Specifically, the language addressing
22 certification of customer equipment has been moved to
23 subsection (4), which addresses customer qualifications. And
24 all language addressing manual disconnect switches has been
25 moved into a new subsection (6) addressing just that subject.

1 In addition, language addressing indemnification has
2 been moved up between the customer maintenance and liability
3 insurance requirements in subsection (5). And, finally, we've
4 also added a new subsection (9) addressing renewable energy
5 certificates.

6 Now to review a little bit more the more specific
7 substantive changes made since the last workshop. In
8 subsection (1) we have changed the application of this rule
9 from all electric utilities to just the IOUs. Staff agrees
10 that there is some question about the scope of the Commission's
11 jurisdiction over munis and co-ops in these interconnection net
12 metering requirements. So staff proposes to change the
13 requirement for munis and co-ops under this rule to just
14 reporting under subsection (10). We would expect the munis and
15 co-ops to develop interconnection net metering standards which
16 parallel that of the IOUs. And to the extent that there are
17 significant differences in the policies that they adopt, staff
18 intends to monitor these differences and take action on a
19 case-by-case basis as necessary.

20 In subsection (3) we have changed the requirement to
21 systems up to 2 megawatts. There was quite a bit of comment
22 about increasing to this level in the last workshop and
23 postworkshop comments. And after a look at it, staff felt that
24 going up to 2 megawatts would actually make this rule more
25 consistent with the fast-track process contained in FERC's

1 small interconnection rule. Staff has also included a new
2 standard, IEEE 1547.1, and revised UL 1741 to incorporate the
3 latest revision of that rule.

4 And in subsection (4) staff has added qualifying
5 language that the customer system not exceed 90 percent of the
6 utility's distribution feed rating, which was suggested by, I
7 believe it was FLSEIA as a way to address safety and group
8 performance standards.

9 Staff also revised the tiers to better capture
10 residential systems in Tier 1, and to expand Tier 3, as I said,
11 up to 2 megawatts. Again, language regarding certification of
12 equipment was moved to subsection (4), and staff added an
13 explicit requirement for customer equipment to include a
14 utility-interactive device that addresses islanding.

15 Staff also included language to address the fact that
16 after a Tier 3 interconnection study, additional equipment and
17 design may actually be necessary.

18 In subsection (5), we have dropped the liability
19 insurance requirement for Tier 1; again, focusing on that on
20 residential. And we have increased the requirement for
21 Tier 3 to \$1 million and for Tier 3 -- for Tier 2 to \$1 million
22 and Tier 3 up to \$2 million. Staff felt these levels better
23 matched the liability coverages that businesses would generally
24 carry.

25 Utilities are still encouraged to recommend to each

1 customer that they evaluate and carry sufficient liability
2 insurance. And as stated earlier, the indemnification language
3 was moved to this section and clarified a bit.

4 (6) is the new section addressing manual disconnect
5 switches where we basically took all the existing language and
6 combined it into this section. And in subsection (7) staff has
7 added language to better clarify and fill holes in the
8 application and agreement execution process. Most notable is a
9 new requirement to maintain a downloadable copy of the
10 application on the IOU's website and an extension to 90 days to
11 execute the interconnection agreement in this situation where a
12 Tier 3 interconnection study is necessary.

13 Subsection (8) is net metering. I'll hand that off
14 to Karen.

15 MS. WEBB: Karen Webb. Since the last revision was
16 distributed there were two notable changes in subsection (8).

17 First, if you look at Pages, Page 8, Lines 18 through
18 20, a sentence was added to clarify that a net metering
19 customer will pay the applicable customer charge or demand
20 charge for each billing cycle regardless of the level generated
21 and consumed.

22 Secondly, there was a change in the net metering
23 section since the last draft on the excess generation payment
24 on Page 8, Lines 24 through 25, and Page 9, Lines 6 through 7.
25 The language now reflects that in the event of excess energy

1 generation at the end of the defined 12-month period, the
2 customer would be paid at an average annual rate based on the
3 investor-owned utility's COG-1 as-available tariff, which
4 essentially amounts to that utility's avoided energy rate.

5 Cayce.

6 MR. HINTON: And the new subsection (9), as stated
7 earlier, states that the customers retain ownership of
8 renewable energy certificates. Although staff feels that the
9 customer should pay for any metering required to certify their
10 recs. We've tried to leave room for negotiation over costs and
11 purchases between the IOU and the customer.

12 For example, at the recent workshop on RPS somebody
13 mentioned that in some states IOUs will do an advanced purchase
14 of all recs. And we want to leave room for negotiation; if an
15 IOU wanted to do something like that, they could perhaps cover
16 the cost of the meter, what have you.

17 MS. WEBB: Under subsection (10), reporting
18 requirements, this area was modified to be applicable to all
19 electric utilities. The Commission has authority under Section
20 366.04(2)(f), Florida Statutes, to prescribe and require
21 electric utilities to file periodic reports and other data to
22 exercise its jurisdiction. We believe it necessary to have a
23 statewide information base on customer renewable generation.

24 Under subsection (11) on dispute resolution, this
25 area was simplified to make reference to the Commission's

1 complaint rule and its rule on initiation of formal proceedings
2 as options available to customers to resolve disputes.

3 MR. FUTRELL: Thank you.

4 Now if everyone has a copy of the rule, we'd like to
5 start going through it line by line again and talk about the
6 changes, give you an opportunity to comment on each section.

7 Looking at the first, we've changed the title to
8 better clarify the title there. Rosanne, do you have any
9 comment about that?

10 MS. GERVASI: The change to the title is just to
11 reflect that we have one main subject that is the subject of,
12 of this rule which has to do with customer-owned renewable
13 generation. And, you know, net metering and interconnection
14 both address that single subject.

15 MR. FUTRELL: Okay. Section (1) is the application
16 and scope. And as Cayce mentioned earlier, we've made a change
17 there to have the rule be applicable only to the investor-owned
18 electric utilities. Any comments on this section?

19 MS. CLARK: Well, Mark, I just wanted -- as I
20 understood, you are not at this point planning on doing a
21 separate rule applicable to munis and co-ops; is that right?

22 MR. FUTRELL: That's correct.

23 MS. CLARK: Okay.

24 MR. FUTRELL: Okay. Moving on in the definitions.
25 We have changed specify on (2) (b) about gross power rating,

1 manufacturer's AC nameplate. We've also clarified on the
2 definition of net metering. We've spelled out in renewable
3 energy the items that are listed in 377.803. Any comments in
4 the definitions?

5 MS. CLARK: Mark, we had a suggestion on (2)(b) that
6 we hope will clarify it a little bit. Inserting in the
7 language you have this would be -- let me look at your rule.
8 Yeah. On Line 16 after the word "generation," add "system that
9 will be," leave "interconnected" in, and then add "and will
10 operate in parallel with."

11 So it would read, "'Gross power rating' means the
12 total manufacturer's AC nameplate generating capacity of
13 on-site customer-owned renewable generation system that will be
14 interconnected and will operate in parallel with the
15 investor-owned utility distribution system."

16 MR. TRAPP: Could you do that once more, Susan?

17 MS. CLARK: Read the whole thing?

18 MR. TRAPP: If you would.

19 MS. CLARK: "'Gross power rating' means the total
20 manufacturer's AC nameplate generating capacity of on-site
21 customer-owned renewable generation system that will be
22 interconnected and will operate in parallel with the
23 investor-owned utility distribution facilities."

24 MR. FUTRELL: Anyone have any comments about that
25 suggested language?

1 MR. GRANIERE: I have one.

2 MR. FUTRELL: Bob.

3 MR. GRANIERE: Why is it important? I mean, it's
4 just a comment. You didn't tell anybody why you needed it.

5 MS. CLARK: We believe it provides -- it's more clear
6 that it's the system that will operate in parallel that we're
7 concerned with.

8 MR. GRANIERE: So that means that systems that don't
9 operate in parallel wouldn't be eligible?

10 MS. CLARK: Well, no. We're trying to define what
11 gross power rating is. This is only a definition, Bob.

12 MR. GRANIERE: Okay.

13 MR. FUTRELL: What did you see lacking in the
14 existing definition? What, what did you see that was, that was
15 of concern?

16 MS. CLARK: I think that our concern was just that it
17 be -- we're concerned with what is going to be operating in
18 parallel with the system is what you were concerned about as
19 far as the interconnection and the gross power rating of that.
20 I can get more clarification from you -- for you, if you need
21 that.

22 MR. TRAPP: Could I ask a clarifying question?

23 MS. CLARK: Yeah. Let me get Bill Pope up here who
24 has been working on this.

25 MR. TRAPP: Let me just ask a clarifying question.

1 Is it not important that these systems, if they're going to be
2 interconnected with the electric utility grid, operate in sync
3 and together and that they not be disparate (phonetic) in their
4 operation?

5 MR. POPE: That's correct. It's to make sure that we
6 are covering ones that are operating in parallel connected with
7 us and operating at the same time. Just for clarification.
8 It's -- the language as it was proposed was okay. We just
9 wanted to go the one step further. Because we've done this
10 many times, and all the times we do it we usually talk about
11 operating in parallel with, and that's the only reason why we
12 really want to put it in there.

13 MR. TRAPP: Yeah. Some of us believe that the word
14 "interconnected" incorporates that concept. But as I
15 understand it, you just want to make a clarification that
16 that's included.

17 MR. POPE: Correct.

18 MR. FUTRELL: Bill.

19 MR. TOTH: Yeah. I want to go back to --

20 MR. FUTRELL: Would you identify yourself, please?

21 MR. TOTH: Okay. Bill Toth with All Source Energy
22 from Bonita Springs, Florida.

23 I want to the go back to (2)(a) where "Customer-owned
24 renewable generation means an electric generation system
25 located on a customer's premises that is primarily intended to

1 offset part or all of the customer's electricity requirements
2 with renewable energy."

3 The question I have regarding this and throughout the
4 section is if I own a building or a customer owns a building
5 but they are not the ones actually purchasing the system, you
6 have a group of investors coming in that are going to actually
7 purchase the system, put it on a third-party's roof and lease
8 that energy back to them, is that allowable under this rule?
9 And I had asked that comment in my, or asked that question in
10 my comments that I had submitted with regards to the
11 August 30th hearing.

12 MR. TRAPP: Well, I think what you've asked is a
13 legal question, so I would defer to legal. But my
14 understanding is that there's a body of history at this
15 Commission that revolves around the PW Ventures case and then
16 subsequent cases that tried to define situations where a
17 third-party sale existed.

18 So my comment would be that you would have to
19 structure your lease arrangement in such a situation to conform
20 to those declaratory statements that the Commission has
21 previously entered into, which basically, as I understand it,
22 revolve or come down to the customer of record has to
23 demonstrate the risk of ownership associated with that
24 facility. But, again, I'd defer to legal on this point.

25 MS. GERVASI: I really don't have anything else to

1 add to that. Although, you know, if you want to see copies of
2 the cases or the declaratory statements, we can provide those.

3 MR. TOTH: Okay. But I guess --

4 MR. FUTRELL: I think there's nothing preventing,
5 there's nothing preventing you as long as there's some, it
6 conforms to some of these precedents that we've seen.

7 MR. TOTH: And the reason I asked that is there are
8 many cases where the building owner may not have the tax
9 liabilities to take advantage of the tax incentives and,
10 therefore, a group of investors that have the tax liability
11 will come in, basically purchase and build the solar system on
12 a customer's roof and do a leaseback option that normally runs
13 around seven years before they purchase the system back because
14 of IRS rules. Is that --

15 MR. TRAPP: And, again, my experience has been that
16 those types of arrangements can be worked out such that they
17 comply with the law that exists currently in Florida. But,
18 again, we cannot change the laws of Florida by doing rulemaking
19 at the Commission. So I would advise you to, you know, have
20 your people study very carefully the past precedences that have
21 been ruled on by this Commission in structuring your lease
22 arrangement.

23 Generally speaking, just off the top of my head, if
24 it's a cents-per-kilowatt-hour type of billing arrangement,
25 that tends to run you afoul because it starts looking like a

1 retail sale and may get you involved with that PW Ventures
2 ruling. If, however, you're just doing some creative financing
3 around tax credits or something like that, you have a fixed
4 payment type of arrangement, those, I believe, have generally
5 been ruled as acceptable under, under the current statutes that
6 we have.

7 I do know that this is a subject of interest with the
8 Florida Energy Commission, the Action Team that the Governor
9 has put together, and there may very well be some statutory
10 changes coming forward in this area. But, again, I repeat,
11 this Commission can't change the law. I think we are
12 sympathetic to creative financing, service arrangements that
13 can be established, and unfortunately there are some hoops and
14 loops that one has to go through to get there at present.

15 So, again, our intent is not to discourage that type
16 of activity, but to, to allow it to take place, you know,
17 within, within the four corners of the current statutes.

18 MR. TOTH: That answers my question.

19 MR. HINTON: Okay. I was just going to clarify. You
20 may not need it now that he answered your question.

21 PW Ventures involved somebody coming in and selling
22 the electricity to a third party. And so if, if -- and, you
23 know, the definition of a public utility, does that make you a
24 public utility? Am I correct in that?

25 So if you had the investors come in, build the system

1 on this, the building owner's property and then sell the
2 electricity to the building owner, as Bob said, that's probably
3 going to run you afoul of PW Ventures if there's some way that
4 the customer was involved in leasing the equipment or whatever,
5 you know. That's what you'd have to get around is the fact of
6 are they selling the electricity that's generated in my
7 nonlegal opinion.

8 MR. KEYES: Hi. Jason Keyes from the Interstate
9 Renewable Energy Council. And first, on PW Ventures, I just
10 wanted to clarify one thing that happens in that case.
11 Essentially it's the Supreme Court of Florida saying, boy, this
12 is about energy. We defer to the PSC on this sort of thing.
13 And agencies are allowed to change their minds with good
14 reason. And so you could look -- the Commission could look at
15 this and say, yes, PW Ventures dealt with a very large
16 cogeneration facility, but now we're talking about small
17 renewables. We're going to carve out a separate rule for this.
18 And in all likelihood, if the Supreme Court were to go back and
19 look at it, they would say, yes, we defer to the PSC on this
20 too. If the PSC wants to make a special rule for renewables
21 that you can have third-party sales for these small rooftop
22 systems, then so be it. So I don't think the PW Ventures
23 absolutely, absolutely rules out these systems. I would think
24 that if the Commission wanted to, they could change their own
25 rules.

1 And to add to the comments previously made, it's not
2 just an alternative to have the third-party ownership. It's
3 the primary driver in large solar systems in other states now.
4 The third-party ownership model is the standard. If you own a
5 grocery store, you know how to sell groceries. You don't know
6 anything about solar energy systems. And so the thought of
7 going and learning everything about it and installing your own
8 is too complex and too time-consuming. You don't want to deal
9 with it. But if somebody comes to you and says, I'll put it on
10 your rooftop and I'll own it, you don't have to do anything,
11 it's just a little cheaper electricity to you, then it's a lot
12 easier. So, so that seems to be the primary way that solar is
13 getting installed now. If you want to see solar happening in
14 Florida, then you, you should find a way to make those large
15 systems happen with third-party ownership.

16 And the other thing is the reason that that model
17 works so well is that the third-party owners, as you mentioned,
18 are owned by somebody that has a tax appetite. And so
19 essentially by ruling out that, that method of ownership,
20 you're, you're telling Floridians that they can't take the
21 federal tax credit that everybody else gets. So it's a great
22 tax credit and it's available to everybody in the country. And
23 with the rule as it stands now, all those systems won't go into
24 place and you won't get those tax credits.

25 So actually that would be it. I'll take any

1 questions.

2 MR. FUTRELL: Dell.

3 MR. JONES: Yeah. Dell Jones with Regenesi Power.

4 I just want to say as a large project, renewable project
5 developer, you know, I couldn't in good conscience recommend to
6 our company to do third-party financing under a sort of
7 regulatory risk that we went ahead and did this and, as you
8 stated, do this workaroud, only to have the possibility of,
9 you know, being sort of called on the carpet as being a
10 regulated utility. And the whole project, you know, can really
11 unravel at that point.

12 So, you know, when these, when it comes to these
13 third-party PPA models, I mean, non-profits, schools,
14 universities, governments, anybody that does not have a federal
15 tax credit appetite, you're ruling out me installing the system
16 like I installed out here. I couldn't do that basically under
17 a purchase agreement probably because the Department of
18 Management Services doesn't have a budget nor a tax appetite.
19 So logically as a commercial developer I can implement that
20 project at a lower cost because I can avail myself of the tax
21 credits versus a municipal utility or college or university
22 doesn't have the cost appetite. Their cost to implement would
23 be higher. So like Jason had said, throughout the rest of the
24 country these third-party PPA models really do make a lot of
25 sense. And, again, you can sort of box it into the, the, you

1 know, renewable energy systems installed behind the meter that
2 do not in essence start looking like a merchant plant. And,
3 you know, I think there is a workaround. And certainly from
4 our company's perspective it's quintessential for us to come in
5 and have that defined and not perceived as a regulatory risk
6 that we would be shut down.

7 MR. HINTON: Could you guys propose some language
8 that would perhaps go to that end, recognizing, you know, the
9 problem with PW Ventures in postworkshop comments?

10 MR. KEYES: We'd be happy to.

11 MR. TRAPP: Let me take that one step further, Cayce.
12 We're under a time crunch here. First of all, let me make an
13 observation that the Commission does have a mechanism called a
14 declaratory statement that your clients can take advantage of
15 at any time to clarify whether or not a business arrangement
16 that you put together would meet mustard with respect to
17 Florida law. And that's a process that I'll refer you to
18 Rosanne to get some more details on.

19 But let me turn first to the investor-owned utilities
20 and ask Ms. Clark: Ms. Clark, would you challenge this rule if
21 it had a provision like they're talking about?

22 MS. CLARK: Well, you know, I don't agree with the
23 statement that the Commission can change their opinion on what
24 the law is. In fact, in this case the supreme court has said
25 what the law is. The sell of electricity to another person

1 makes you a public utility subject to the regulation by the
2 PSC. You know, where do you draw the line? At what point do
3 you think the sale of electricity in these circumstances are
4 okay but in the next circumstances it's not?

5 The position would be, I would surmise, that
6 PW Ventures is the status of the law and that there is no
7 authority currently for the Commission to allow that kind of
8 arrangement where there is a sale of retail electricity to a
9 customer by an entity other than a public utility.

10 MR. TRAPP: Could I turn your question back around to
11 you and challenge you with the question: Under what
12 circumstances could we have language that would permit
13 third-party financing of these small on-site solar facilities?
14 And having turned the question back on you, can I challenge you
15 to get with the parties that have just spoke over the next
16 break perhaps or even over lunch and see if y'all can today
17 come up with some crafted language that you'll put on the table
18 this afternoon that we can study so that we don't have to wait
19 for posthearing comments and the backwards and the forward that
20 goes on with that?

21 MS. CLARK: Bob, I think that is, that has very broad
22 policy implications that I would be uncomfortable pledging to
23 you that we could resolve today. And it seems to me that the
24 people who may be here for the utilities would likewise have to
25 be able to get in touch with folks within their individual

1 utilities to discuss the, the regulatory policy revenue
2 implications, tax implications of those kinds of suggestions.

3 I think earlier in these, in this workshop you had
4 suggested that maybe the appropriate place for this is to
5 discuss in the Legislature is this an appropriate public policy
6 shift.

7 MR. TRAPP: Well, again, I think we're trying to
8 determine if there's any language that would meet the challenge
9 of PW Ventures in the ensuing cases that came after it. And to
10 the extent that the solar representatives here have some
11 language in mind, at least share it, if you would, with
12 Ms. Clark and let her share it with her clients. And, you
13 know, hope springs eternal. Perhaps something will come of it
14 and we can, we can get past this issue today and not have to
15 litigate it further at the agenda. Again, hope springs
16 eternal.

17 MS. CLARK: May I excuse myself for a minute? I
18 forgot to identify myself. My name is Susan Clark. I'm here
19 with -- my law firm is Rady, Thomas, Yon & Clark, and I'm here
20 today speaking on behalf of Florida Power & Light, Gulf Power,
21 Tampa Electric Company and Progress Energy. I apologize for
22 not introducing myself first.

23 MR. TRAPP: I think I erred as well. I'm Bob Trapp
24 with staff.

25 MR. GILLIS: My name is Charles Gillis. And, Bob, we

1 spoke last week with Cindy Miller on the phone on this very
2 subject. I had a different application in mind. I was the one
3 who submitted the suggestion that we allow customers to have
4 net meter renewable generation at a site other than their own
5 premises. And this was one of the two primary objections that
6 was put up is the PW Ventures case. And I'd like to echo what
7 Jason said is that if you look at the PW Ventures case, before
8 they get into the substance of the case, what's the very first
9 thing that they say is, look, regardless of what you guys are
10 arguing about, we're probably going to defer to the PSC.

11 And listen to the language they use when they, when
12 they say that. They say, "At the outset we note the
13 well-established principle that the contemporaneous
14 construction, the contemporaneous construction of a statute by
15 an agency charged with its enforcement and interpretation is
16 entitled to great weight. The courts will not depart from the
17 construction unless it is clearly unauthorized or erroneous."

18 So this is 1988. Twenty years have passed. We've
19 had a change in public policy, technology has changed, the
20 Governor has issued a mandate. And is the Commission going to
21 tie its hands to this old ruling or reinterpret under
22 contemporaneous circumstances what these different statutes
23 mean and how they're applied today? I think the courts would
24 back you up. And, in fact, that's what you're doing under the
25 net metering rule as it's envisioned.

1 The -- as -- if this rule goes through as it is
2 written now, you are violating the PW Ventures rule. You're a
3 violating monopoly, you're creating unnecessary duplication of
4 generation, you're diverting revenue, and those things fly in
5 the face of PW Ventures. But it's not going to stop the
6 contemporaneous construction of the statutes for the PSC. So I
7 would, I would take a measured approach to this and offer to
8 find some neutral language that would accommodate it.

9 MS. CLARK: Bob, this is Susan Clark. The only thing
10 I would add is I think you pointed out, Bob, that since the PW
11 Ventures, and that was addressing essentially cogeneration and
12 the idea of inspiring more cogeneration if you could allow
13 these sorts of arrangements, but there were very many, I
14 think -- well, a number of successful arrangements that
15 complied with the PW Ventures that went forward in a lease type
16 arrangement. So I think that those possibilities still exist
17 out there.

18 MR. HINTON: Susan, do you know what was the factor
19 that allowed those arrangements to go forward? Was it a matter
20 of leasing the facility versus purchasing electricity? Was
21 that the distinction, or do you remember?

22 MS. CLARK: I don't recall. I mean, the lease was a
23 factor in it. And if it looked more like a lease and the
24 payments were not tied to amount of electricity generated, I
25 think those factors sort of added up to concluding that it was

1 more of a lease type arrangement rather than the sale, the
2 retail sale of electricity.

3 MR. FUTRELL: Rich.

4 MR. ZAMBO: Rich Zambo appearing on behalf of
5 renewable, renewable generators.

6 I was familiar with some of those cases. I just
7 wanted to share some of my thoughts with you. With respect to
8 the lease arrangements, I think the cases in which the
9 Commission allowed those sales to proceed were based on two
10 things. One was that the arrangement was, I think the word was
11 tantamount to ownership by the, by the generator or the
12 operator of the generator. And the other was where there was a
13 unity of interest where the structure was such that although it
14 wasn't a straight lease the Commission couldn't envision a
15 situation where an investor would want to put themselves in the
16 position of the investor in the particular scenario that we
17 presented. And that pretty much sums those up.

18 But I also wanted to say that as a, as a counselor
19 advising clients who came to me at that time asking me what
20 would happen to us if we did an arrangement that the Commission
21 deemed to be a retail sale, there were two things that I would
22 tell them, actually three things.

23 One is at that time if you were a, deemed to be a
24 utility, you couldn't be a QF. That law has changed now, so
25 that's no longer an issue.

1 Another concern was that you could be, you would be
2 regulated as a utility and you, the Commission, would set their
3 rates. And in some cases they might not have a problem with
4 that either as long as it was, you know, a cost-based
5 structure. But the biggest issue was or biggest concern was
6 that if they proceeded to do that and the utility then
7 initiated a territorial dispute, that could throw everything
8 into upheaval for months and maybe years and financing would
9 fall apart and the project just couldn't stand that kind of
10 uncertainty.

11 So it seems to me like what PW Ventures said was if
12 you did one of these deals, you become regulated by the
13 utility. Well, maybe the Commission -- or as a utility by the
14 Commission. So it seems to me like the Commission could adopt
15 rules or policies that deal with these kind of arrangements.

16 And, for example, the unnecessary duplication of
17 facilities, we've got a policy in the state now that we want
18 renewable facilities. So you're not necessarily duplicating
19 facilities. You're encouraging facilities that the state has
20 declared a need for. So I do think that in light of, even with
21 PW Ventures standing out there, the Commission has an awful lot
22 of leeway to implement the intent of the Legislature and the
23 intent of the Governor as expressed in his legislative, or in
24 his executive order. You could regulate these facilities. You
25 could set their rates, you know, based on the kind of rate they

1 need to survive and to encourage them. And you could overcome
2 the unnecessary duplication, I think, by making the argument
3 that we have a, we have a dearth of renewable energy in the
4 state. The utilities have told you over and over again that
5 we're unlikely to ever be able to reach 20 percent, so why
6 should we do things to discourage development of renewable?
7 And I think you could easily circumvent PW Ventures.

8 Now having said that, I also wanted to point -- I
9 came in a little bit late, so I'm not sure what the standard or
10 what the procedures are. But I wanted to make a comment about
11 the proposed net metering rule. Is this the appropriate --

12 MR. FUTRELL: We're going to kind of go through the
13 rule line by line. We're in the definition section now. We
14 will get there. So if you wouldn't mind holding your comments
15 until we get to the net metering, that would be great.

16 MR. ZAMBO: Okay. That'll be fine. I certainly
17 appreciate it.

18 MR. FUTRELL: Bob Reedy.

19 MR. REEDY: Bob Reedy with the Florida Solar Energy
20 Center.

21 Even though this is not about the RPS, this is about
22 net metering. They do link. And it speaks to the last point
23 just raised that this is not a duplication. This is something
24 we don't have enough of. This is renewable generation, it's
25 not generation. The key word is renewable.

1 In our analysis of the amount of, in particular solar
2 generation available in the state that we've been asked to do
3 and we've been given those numbers in various proceedings, we
4 have two stages. The first stage is if nothing changes, if the
5 rules are all the same today and that's where we come up with
6 the 2 percent of net energy for load for PV and 2 percent for
7 solar thermal, but then we go beyond that and we've been asked
8 how much is there available in the State of Florida without
9 really doing anything dramatic and we come up with nearly
10 10 percent, well, nearly 8 percent with PV, and that is using
11 available rooftops.

12 And the key available rooftops that we're looking at
13 beyond new homes, certainly that was important, but beyond the
14 new homes, was commercial rooftops, and particularly schools
15 and large stores and shopping malls and this sort of thing.
16 And so we really do, we really are counting on something that
17 we don't have enough of, which is rooftop. And it seems to me
18 that if we, if we follow this logic that the only one who can
19 generate is the electric utility or the owner of that system,
20 then we've, we've done something that we didn't intend to do,
21 which is basically say that if I own a large amount of rooftop
22 as Wal-Mart or someone, that the value of my roof has been
23 diminished in that the only one I can lease it to is the
24 utility, and I think I would be, be pretty upset about that.

25 And then again, as was mentioned, if I'm a school

1 system, capital is hard to come by. I would really like
2 someone to come in and cover all those schools, those nice
3 flat, open rooftops with PV panels. So these, these things are
4 going to be hard to separate and just say, well, they don't,
5 they don't matter. They really are going to keep coming back
6 at us if we don't deal with it. And I'd just leave it at that
7 for now.

8 MR. HANSEN: Gordon Hansen from Chuliotota, Florida,
9 homeowner.

10 I have a question on the definition of (a) where you
11 say that it's primarily intended to offset the customer's
12 electric requirements for renewable. Putting this in the
13 definition to me is a limiting factor, an additional limiting
14 factor. You already reduced the amount that the homeowner can
15 generate from 25kW to 10, which I like that idea, but it
16 further isolates the homeowner from the other tiers where you
17 can generate for a profit. And this here is a limiting factor.
18 Why, why even put that in? You've already limited it to 10kW.
19 And this gives ammunition to the power companies to say to you
20 that, look, you're supposed to be only generating enough to
21 offset your electric bill. If you try to generate in excess to
22 pay for this thing, you can be limited on the amount of money
23 that you can get back on this.

24 So that was my suggestion is that it just, that part
25 of the sentence where it says "offset part of the customer's"

1 just be eliminated in the definition. And using the word
2 "offset" and "excess" throughout this document is a way to
3 separate the two.

4 And as a homeowner speaking for maybe millions of
5 homeowners, we need to find out a way that we can pay for this
6 thing other than waiting for 20, 30, 40 years. Because if we
7 cannot get retail price for what we generate, then it's not
8 worth it. You'll find out it takes about 70 years to pay back
9 for a system based only on offset. And then in addition to
10 that, if you're required to keep it under the offset amount or
11 to the offset amount, then you have to try to figure out where
12 you can generate electricity that will offset but not give you
13 too much excess. In other words, should I get a \$30,000 system
14 or a \$35,000 system or a \$40,000? Because if I generate
15 excess, basically with the payback scheme COG-1 I'm going to
16 get only 40 percent back of whatever I generate in the excess
17 area.

18 MR. HINTON: I just wanted to clarify one thing
19 about -- you mentioned the Tier 1. We did change the level for
20 Tier 1, and the purpose of that was to better capture
21 residential systems, really related to dropping the liability
22 insurance requirement for that tier. However, homeowner's
23 residential systems are not limited to Tier 1. They can do
24 whatever they want. If they want to build a 25kW system, they
25 can. They would just be a Tier 2 system instead of a Tier 1.

1 But there's no -- residential, residential customers have not
2 been limited to Tier 1.

3 MR. HANSEN: Well, Tier 1, dropping it down to 10 is
4 a good idea. I think it's good because of the fact that your
5 transformer just outside your house probably is a 25kW, maybe a
6 50, so you need to get it down below that. If you have two
7 customers on that type of transformer, 10kW is great. But it
8 also further separates the homeowner from the business type
9 people. And, therefore, it's a way to say to the homeowner,
10 okay, we will pay you offset amount at a retail rate and excess
11 amount at a retail rate. You see, I'm trying to figure out a
12 way that you can possibly pay for this stuff. And the way it
13 works out now, you know, I would probably be six foot under
14 before my system is paid for, and it's a serious problem.
15 Thank you.

16 MR. TRAPP: If I might, Mark.

17 Mr. Hansen, I believe it is.

18 MR. HANSEN: Yes. Gordon Hansen.

19 MR. TRAPP: Hi. I'm Bob Trapp with the staff.

20 Are you familiar with the Commission's rules that
21 begin 25-17.200 through 300 series?

22 MR. HANSEN: No.

23 MR. TRAPP: These were adopted this year in March and
24 basically address the purchase of energy and capacity from
25 renewable energy systems. They're brand new rules. They're

1 intended to encourage the development of renewable generation
2 on the grid side of things. I think the purpose of these
3 rules, as I understand it, is to address not the purchase of
4 energy from renewable generation but the offset of customer
5 consumption.

6 In my mind there are two things that are in play
7 here. There's conservation that takes place on the customer's
8 side of the meter, and then there's the business of generating
9 and producing electricity, which once it's generated it has to
10 go somewhere and there's generation and transmission that's
11 involved to get it there. I, I would suggest to you that we're
12 trying to achieve a balance here between those two systems.
13 And I would also suggest to you that there may be some rate
14 inequities associated with paying retail costs for generation
15 that would have to be borne by other customers. And I think
16 what staff has had to do at least is question ourselves:
17 What's fair? What's fair for the other ratepayers that don't
18 have a solar system that aren't trying to pay for it? Should
19 they be forced to pay for someone else's system? And I think
20 that therein, just by means of my own understanding, is the
21 balance that we're trying to achieve between the two rules.
22 And I'm not sure that helps you with respect to finding
23 additional funds, but that, that to me is the explanation for
24 the definition that we have put forward in this rule.

25

1 MR. FUTRELL: Any other comments for discussion on
2 the definitions?

3 MR. TOTH: We're kind of going a little -- yeah.
4 Bill Toth with All Source Energy. We're kind of getting down a
5 rabbit trail here. But it's my understanding that with the
6 coal burning power plant that was proposed and didn't make it
7 through, that there was going to be a small additional charge
8 charged to all of the customers in the billions of, which would
9 have amounted to being in the billions of dollars for building
10 the plant. So they were going to get charged a small surcharge
11 for creating this additional generation capacity. Am I
12 mistaken in that? And why couldn't some of the monies that
13 were going to be used for additional generation of this power
14 plant be used for additional generation of solar or wind?

15 MR. TRAPP: In response to that, number one, the
16 Commission did not vote for approval of that plant, nor the
17 revenues that were associated with it.

18 On the second hand, I'm not aware of a surcharge that
19 was being talked about in that case. The cost-effectiveness
20 test that was put before us showed that it would take a long
21 time for that power plant to reach a payback on a fuel
22 comparison basis. But, you know, there were scenarios that
23 were proposed by the company that showed, depending on what
24 fuel forecast you believe in, that there would have been a
25 payback for that plant. Again, all of that is somewhat

1 irrelevant because the Commission was, was not comfortable with
2 the risks associated with some of those payback schemes or
3 scenarios, excuse me, schemes, scenarios, and therefore did not
4 approve the plant.

5 With respect to your request for, for a subsidy,
6 again, I think the Commission at least from a staff perspective
7 is constrained somewhat by statute in this area. The statute
8 to me is very clear. It says pay avoided costs. Whatever the
9 utility would have paid is what should be paid for cogeneration
10 at the grid level.

11 Again, the purpose of this rule to me looks on the
12 customer's side of the meter and says that a customer can do
13 anything he wants to reduce his consumption, conservation. You
14 can choose not to use it, you can choose to better put
15 efficiencies into your building through insulation or whatever,
16 improve your air conditioning system or put in a solar wind
17 system, whatever, to generate your own electricity on your side
18 of the meter. So I think that to me is the demarcation here.
19 We're talking about two different things: One is a
20 conservation type approach, the other is sales to the grid.

21 MR. FUTRELL: Any other comments? Mr. Jacobs, did
22 you want to make a comment?

23 MR. JACOBS: Thank you, Mr. Futrell. My name is Leon
24 Jacobs. I am -- my firm is Williams & Jacobs. I'm here on
25 behalf of the Southern Alliance for Clean Energy as well as the

1 Natural Resources Defense Council.

2 I wanted to chime in a bit. I was intrigued about
3 the description a moment ago, and I've heard the discussion
4 about PW Ventures. And so I'd like to take it in somewhat of a
5 broader context, you know, the approach that this rule is
6 taking. I think the idea that Mr. Trapp expressed of
7 balancing ideas is, is an important perspective, and I think
8 you're correct in taking that perspective, that this is a
9 balancing approach.

10 I know you're familiar that the Federal Energy
11 Regulatory Commission has adopted an interconnection rule. I'm
12 not sure what perspective, what role that plays. I think it
13 has some bearing in other states that they've taken guidance
14 from that rule. But I think it's really important as I read
15 the adoption of that rule, particularly in the definitions that
16 you have here, that the FERC took a particular perspective that
17 they were there to encourage and promote the development of
18 renewable resources. And when they did their definitions, when
19 they adopted their process, they did so clearly from that
20 perspective. And they even evaluate and analyze provisions in
21 their proposed rule so as to minimize any impact or degradation
22 there would be to participation of the general public in this
23 interconnection process and the net metering process. And so I
24 would urge you to, to, to take that approach, that balancing
25 approach, but I would urge you to do so from the perspective

1 that you want to encourage promotion of renewables by having
2 people interconnect and conduct net metering. If you do that,
3 I think it'll help guide through a lot of discussions we've
4 had. You know, I think similar to the analysis that Mr. Zambo
5 gave about the relevance of PW Ventures here I think is an
6 appropriate analysis. We're in a new stage and time. I think
7 the Legislature has clearly given direction that it desires to
8 promote renewables. This is a vital and, I think, necessary
9 step, this rule is a vital and, I think, necessary step if
10 you're going, if you're going to implement an effective regime
11 to promote renewables. To hinder this rule would effectively
12 hinder the entire process of promoting renewables. And so I
13 think this rule is relevant, and I think you can interpret
14 prior decisions in the context of this legislative mandate that
15 says we now want to promote renewables and here's a rule that's
16 a vital component of that process.

17 There are other elements of the rule I think I would
18 deal with specifically. But in deference to your preference to
19 just focus on definitions at the moment, I'll leave those. But
20 I'll announce them up-front, particularly the insurance
21 provision and those provisions that would deal with whether or
22 not a net metering is paid at wholesale or retail.

23 MR. FUTRELL: Thank you.

24 Okay. If there are no other questions or comments on
25 the definitions, we'll move to Section (3), the standard

1 interconnection agreements. Oh, I'm sorry.

2 MR. HOLBROOK: Excuse me.

3 MR. FUTRELL: Go ahead.

4 MR. HOLBROOK: John Holbrook, Elliott Energy Systems.

5 In Section (2)(d) there is a strike-out. Is that intended to
6 make the definition in this rule the definition of renewable
7 energy and to separate it from the statute?

8 MR. HINTON: No. This is -- this rule, you know, as
9 you can glean from how it's highlighted, originally just said
10 renewable energy is as defined there. And we didn't want to
11 spell it out, we'll just refer to the statute where we were
12 pulling the definition. After the last workshop there were
13 some requests made to go ahead and spell out that definition.
14 So instead of just referring to it as it is there or it's --
15 we're actually -- this is where it is and this is what it is.
16 So we're just spelling it out.

17 MR. HOLBROOK: Okay. So it does separate it from the
18 statute though.

19 MR. HINTON: No. It refers to the statute and then
20 just spells out what the statutes says, how it defines it.

21 MR. HOLBROOK: Okay. And then also under the
22 definitions you have hydrogen, biomass. It's not clear if
23 biomass includes landfill gas and/or digester gas applications.

24 MR. HINTON: The definition of -- oh, boy. The
25 biomass that that statute refers to I believe does. But -- and

1 I guess I should defer to the lawyer for this, but --

2 MS. GERVASI: Well, I will look it up.

3 MR. HINTON: 366.92 that refers to 377.803 as
4 defining renewable energy -- wait. Hold on. No. It's
5 366.91 that I was thinking of that actually has the definition
6 of biomass in it.

7 MR. FUTRELL: Cayce, I believe that definition is
8 used -- biomass is not more specifically broken down, so it's a
9 very broad term. It's not further delineated in the statutes,
10 in that particular reference in the statutes. It's not further
11 broken out. Biomass is a very broad term.

12 MR. HOLBROOK: I'm sorry. Would landfill gas and
13 digester gas be included in there?

14 MR. FUTRELL: That would be probably a legal
15 interpretation. But, again, like I said, I believe biomass as
16 defined there is very broad.

17 MR. HOLBROOK: Okay.

18 MR. TRAPP: Let me just read the section from
19 366.91 that defines biogas. It says, "Means a power source
20 that is comprised of, but not limited to, combustible residues
21 or gasses from forest products manufacturing, agriculture and
22 orchard crops, waste products from livestock and poultry
23 operations and food processing, urban wood waste, municipal
24 solid waste, municipal liquid waste, treatment operations and
25 landfill gas." That's in the statute.

1 MR. HOLBROOK: Okay. Thank you. I think that clears
2 it up.

3 And by -- so what you're saying here is that you're,
4 you're not trying to detach this rule from the statute by
5 striking out "is," and that, again, biomass does, seems to
6 include landfill and digester gas. And if we wanted to have
7 this definition expanded, would we then have to go the -- have
8 the statute expanded or could we ask that another definition be
9 added here such as cogeneration?

10 MR. FUTRELL: If you want to suggest that the
11 definition that we have in the rule be changed, then you're
12 certainly -- you can make that argument and make those comments
13 to us. What do you, what do you -- what would you like to see?
14 What kind of language would you like to see in there?

15 MR. HOLBROOK: I'd like to -- our company would like
16 to add cogeneration to the definition because cogeneration
17 generates electricity and heat. The heat can be used for
18 creating cooling, which would offset a customer's electrical
19 need if they were using electricity to make their cooling. And
20 if you look at the, I believe it was in the recommendations for
21 renewables, the cleanest kilowatt is the one you don't have to
22 generate. So by that definition, a higher efficiency standard,
23 and what that is remains to be seen, the higher efficiency
24 standard would actually offset fuels, fossil fuels that you
25 might actually have to use.

1 MR. HINTON: Wouldn't that be captured in the term
2 "waste heat" that's currently within the rule?

3 MR. HOLBROOK: Waste heat cogeneration is, tends to
4 talk about building processes where a factory has excess heat
5 or steam or something like that and then they add a steam
6 turbine to it. But if you're happy to define it that way and
7 add maybe waste heat cogeneration, I think we'd be happy.

8 MR. HINTON: Well, who do you represent again?

9 MR. HOLBROOK: Elliott Energy Systems. We're a
10 microturbine manufacturer that generates -- our product
11 generates electricity and thermal energy, obtaining about
12 70 percent fuel efficiency.

13 MR. HINTON: Are you the one that called me this
14 week?

15 MR. HOLBROOK: Yeah.

16 MR. HINTON: Okay. Yeah. You can make a proposal
17 for, for specific language that you'd like included in the
18 rule.

19 MR. HOLBROOK: Well, I saw Mr. Trapp shaking his
20 head. I'd like to know what you're --

21 MR. TRAPP: Well, my position is that the statutes
22 are the statutes and that's what the Commission's rules are
23 governed by. I believe waste heat is waste heat. You know, if
24 I put a microgenerator in my backyard, I'm certainly going to
25 use the waste heat from it to run my water heater. That's an

1 application.

2 MR. HOLBROOK: Right.

3 MR. TRAPP: That's waste heat.

4 MR. HOLBROOK: And that's the conundrum.

5 MR. TRAPP: That's conservation. We have numerous
6 conservation programs that do just that. So I don't think
7 there's a problem with the definition.

8 MR. HOLBROOK: Okay. So in your view our product
9 would be included under waste heat?

10 MR. TRAPP: If it produces waste heat in somebody's
11 backyard that they're using to reduce energy consumption, yes.
12 Absolutely.

13 MR. HOLBROOK: Okay.

14 MR. FUTRELL: What we're trying to do with these
15 definitions is have these terms as broad as possible so it
16 gives folks like yourself some flexibility. And certainly
17 there could be some situations where it may be, may have a
18 problem, but that's the idea is to make these broad.

19 MR. TRAPP: My problem with the word "cogeneration"
20 is in my context when you talk about cogeneration, I start
21 moving into the QF rules, which is different.

22 MR. HOLBROOK: Well, that's, that's really where it
23 derives from.

24 MR. TRAPP: Yes, I agree. But I think in this
25 context again --

1 (Simultaneous conversation.)

2 But I think in this context again, again, the reason
3 these rules are located in Chapter 6 of the Commission's rules
4 rather than Chapter 17 of the Commission's rules it's my
5 understanding is because Chapter 6 governs customers. Chapter
6 17 governs sales to the grid. I think that the Commission made
7 a conscious decision when three years ago we enacted the small
8 solar rule to put it in Chapter 6 because this is the consumer
9 side of the meter type of rule application.

10 Now to the extent that we've taken some words from 17
11 used in 6, the technologies are -- it's just a matter of size
12 in my mind. So, you know, if -- you know, frequently people
13 come to the staff for rule interpretations and we give our
14 opinion. You can take it or leave it or you can take it to the
15 Commission and, you know, they can rule. But, you know, if you
16 came to me and said, hey, I've got an application that's going
17 to put a microturbine in somebody's backyard, produce waste
18 heat, run some pool heating, water heating, whatever, waste
19 heat is waste heat. Go for it. That would just be my opinion.

20 MR. HOLBROOK: I appreciate your comments. I think
21 that pretty much clears it up for me.

22 I did read in -- one last comment. In a number of
23 references to renewable energy they spelled out waste heat
24 cogeneration in the recommendations for renewable energy by the
25 Florida Energy Commission, so thank you.

1 MR. TRAPP: I think we're having semantic problems,
2 quite frankly. I think the purpose here is to broadly capture
3 innovative technologies on the customer's side of the meter
4 that will reduce consumption that will benefit all customers by
5 doing that. That's, that's our intent in my mind. So, you
6 know, I don't think there's -- I don't, I don't think there's
7 as many restrictions as you think that are in this thing.

8 MR. FUTRELL: Okay. If we're done talking about
9 definitions, let's move on to Section (3), the standard
10 interconnection agreements.

11 Here we have highlighted the change. Cayce
12 summarized earlier was the change to increase the size up to
13 2 megawatts. We've also listed, as you can see, the, included
14 the 1547.1 and other changes referring to those titles of the
15 standards.

16 MS. CLARK: Mark, this is Susan Clark. This is
17 probably just for clarification. I think, Cayce, you already
18 mentioned it. But we noted in the Governor's executive order,
19 the upper limit he spoke about was the 1 megawatt but you have
20 gone to the 2. And I think you indicated the rationale was to
21 make it consistent with fast-track or --

22 MR. HINTON: Well, that wasn't -- it wasn't strictly
23 for that purpose. It was in response to a number of
24 commenters, also looking around the nation at what other states
25 have done in the capacities that they've implemented. And it

1 just so happened that this ended up, you know, that 2-megawatt
2 level made it consistent with the fast-track process within
3 FERC's rule. But that wasn't specifically -- we weren't
4 intending to, you know, make this rule consistent with that.
5 It just so happened that that level was. But it was more in
6 response to comments and looking around at what other states
7 have done.

8 MS. CLARK: I gather then it's because other states
9 have gone to the 2 megawatts. There's no sort of other facts
10 behind it that say, 2-megawatt, it makes sense because these
11 are the type of facilities.

12 MR. HINTON: Other than what I've just stated. Yeah.

13 MS. CLARK: Okay. Thank you.

14 MR. FUTRELL: Okay. Any other comments? Yes, Gwen.

15 MS. ROSE: Yeah. Hi. I'm Gwen from Vote Solar, Gwen
16 Rose.

17 The current rule says that the utility should file
18 for Commission approval for a standard interconnection
19 agreement within 30 days. And I would encourage the Commission
20 to adopt a single statewide standard that would apply statewide
21 as part of the rule. It would ensure equal legal treatment
22 across all utilities.

23 In terms of processing alone, it really complicates
24 things for developers to have to learn 15 different agreements
25 and applications. And so I would encourage that a statewide

1 standard agreement be developed.

2 And as far as examples for this, the Interstate
3 Renewable Energy Council has models, I believe, Jason can
4 correct me, for an agreement for 10-kilowatt systems and under
5 and then one for above that.

6 MR. HINTON: As -- you know, it's understandable that
7 if you've got 15 different agreements out there, that you've
8 got to negotiate and wade through. Right now we're
9 addressing -- what did it turn out to be, four or five -- five
10 agreements statewide. And they'd all be submitted to the
11 Commission for approval, not just rubber-stamping. And
12 hopefully there would be a simplification to the agreements and
13 some consistency. Of course, that would be, you know, down the
14 road when they're actually filed, those would be looked at.
15 But, you know, there will be some discretion with the
16 Commission to, to do additional work once the agreements come
17 in if they're just wildly variant and would complicate things
18 further.

19 But we have traditionally -- and, you know, Bob would
20 probably be better to speak with this -- have generally given
21 the utilities the flexibility to come in with their own instead
22 of being prescriptive and laying out what the agreement
23 actually has to say provision by provision. Generally that's
24 how we --

25 MR. TRAPP: I agree with you, Cayce. And this is Bob

1 Trapp from staff again. And, again, I don't mean to be
2 argumentative here this morning. I think it's important that
3 staff explain why we've done some of the things we've done in
4 this rule, and, therefore, I hope my comments are of an
5 edifying nature.

6 I agree with you. I think there should be a standard
7 interconnection agreement. The devil is in the details though,
8 it's been my experience. And I'm afraid that if you put that
9 requirement in the rule, the next thing that takes place is
10 somebody wants to see that standard interconnection agreement
11 in the rule and that takes this rulemaking process another 12
12 months. And I don't think that's desirable in this case. I
13 think we want to get the concepts out on the table, get the
14 Commission to vote on them and get this rule in place and go
15 forward with implementation. It's more important to implement
16 than it is to rule make, in my old simple engineering mind.
17 And for that reason, I totally agree with Cayce; the place to
18 tackle this issue is when the utilities file their filings
19 required by this rule. The staff will be looking for
20 consistency in those interconnection agreements. I don't know
21 if that means exact same wording, you know, but at least the
22 principles have to be the same in each one. If there are
23 differences in those tariffs, staff has the ability through
24 that tariff approval process to take our time and, and even go
25 to hearing on those tariffs. So I agree 100 percent with

1 Cayce; the best place in my mind to achieve a statewide
2 interconnection is through implementation in this case. Let's
3 get the rule, then we can, you know, work on the perfection.

4 MR. KEYES: Jason Keyes again from IREC. If you're
5 looking for consistency across the five utilities, one possible
6 way to do that would be to say, we suggest that here's a good
7 starting point, start with -- well, I prefer the IREC rules,
8 but it could be the FERC standard as well. But if you just
9 tell everybody to be consistent, maybe they'll talk to each
10 other and work together, but it would help to give them some
11 direction.

12 MR. GRANIERE: I have a comment, please.

13 MR. FUTRELL: Bob.

14 MR. GRANIERE: Bob Graniere. Gwen, on the idea about
15 the standardization, maybe you might want to consider in your
16 comments and talking about the possibility of working on a
17 parallel path towards a standard agreement somewhere down the
18 road. Because standard agreements have historically turned
19 into wonderfully, wonderful barriers of entry that go on
20 forever and ever and ever to talk about a standard agreement;
21 whereas, giving each utility its option to put together what it
22 wants, it takes away the argument, well, other people want me
23 to do this or we can't reach an agreement or something like
24 that. And what I might suggest is that over time you would
25 naturally see consistencies start emerging, but at the same

1 time you'd actually be getting stuff on the ground. So just an
2 idea of, like, trying to put in a process towards a standard
3 rather than ask for a standard.

4 MR. FUTRELL: Okay. Any other comments on Section
5 (3)? Okay. Let's move on to Section (4), the customer
6 qualifications and fees. And this is where we've included the
7 90 percent of customer's feed rating, distribution feed rating.
8 Also the tiers have been adjusted, as Cayce has mentioned
9 earlier. Let's take comments on that first section, if we
10 would, before we get into the subsections. Anything in the
11 first sections of Section (4), any comments?

12 MR. HINTON: I just want to clarify something I just
13 caught yesterday. Under (c), that should actually say, on Line
14 21, "additional equipment other than that provided for in
15 Section (6)," not (5). So Page 3, that's referring to the new
16 manual disconnect subsection.

17 MR. JACOBS: I have one question just for my
18 information. How does this, if someone can tell me, how does
19 the rating, actual rating take place now in other
20 jurisdictions? How will the customer get their particular site
21 rated for purposes of this rule?

22 MR. FUTRELL: How do they get their system rated?

23 MR. JACOBS: Yes. In subsection (4), it says
24 regardless -- "To qualify for expedited interconnection in this
25 rule, customer-owned renewable generation must have a gross

1 power rating that does not exceed 90 percent."

2 MR. FUTRELL: Right.

3 MR. JACOBS: How does that rating take place?

4 MR. FUTRELL: I know for solar equipment the Florida
5 Solar Energy Center does a rating on the system as far as
6 approving it, and it'll have a, it'll have, and, Bob, maybe you
7 can correct me if I'm wrong, they'll have a rating on the power
8 output of that potential solar system. The Solar Energy Center
9 certifies the equipment sold in the state that it meets all the
10 standards that have been established.

11 MR. REEDY: That's correct. There will be a rating
12 on, you know -- excuse me. Bob Reedy, FSEC. There will be a
13 rating on the panel, the DC rating, and then there will be an
14 output of the AC system. And as mentioned, as written earlier
15 in the interconnection rule, the one of concern here is the AC
16 rating, not the DC rating. So if there's ever a need for
17 clarity, it would be to always say the AC output of the
18 inverter.

19 MR. HINTON: Mr. Jacobs --

20 MR. REEDY: AC output of the inverter.

21 MR. HINTON: Sorry, Mr. Reedy. I didn't mean to
22 interrupt you.

23 Mr. Jacobs, when you asked that question, were you
24 talking about how is the gross power rating established?

25 MR. JACOBS: Yes.

1 MR. HINTON: Or the utility distribution feed rating?
2 There's two different ratings in that section. Which one were
3 you --

4 MR. JACOBS: Gross power rating.

5 MR. HINTON: Gross power rating. Okay. That goes
6 back to -- in the definition section it refers to the
7 manufacturer's AC nameplate.

8 MR. JACOBS: Okay. I'm sorry. I missed that.

9 MS. CLARK: Yes. We had -- I guess I had a
10 clarification question really. You say, I think in this
11 section you say that you -- this is the phrase, "that does not
12 exceed 90 percent of the customer's utility distribution feed
13 rating." We take this to mean that it is the feed rating for
14 that particular customer, not necessarily those in his area,
15 but it's for that particular customer. That's fine. That's
16 how we read it and we wanted to make sure we were on the same
17 page.

18 MR. HINTON: Can I ask you a question? Does that
19 phrase -- I took that phrase from FLSEIA and their comments. I
20 want to make sure that phrase is an accurate way of addressing
21 it, just that the wording is correct.

22 MR. ASHBURN: I don't know. This is Bill Ashburn of
23 Tampa Electric. We would have called it the service into the
24 house or the building. I don't know if all the utilities would
25 use the same phrase. I assume that's what you're meaning by

1 the service to the house from the line out in the street.

2 MR. HINTON: Yeah. You know, the, the distribution
3 feed rating. You know, basically the facilities coming into
4 the house, what's their capacity?

5 MR. ASHBURN: Well, we were concerned you might have
6 missed an E-R at the end and meant feeder, meaning the
7 distribution line in front. And so other people call that a
8 feeder sometimes. We didn't know what you meant. So if you
9 mean service, the line that connects to the weather head on the
10 house or at the meter, then that's, that's what we were looking
11 for to see if that's what you meant.

12 MR. HINTON: Okay.

13 MR. ASHBURN: And I don't know what the right word
14 would be. We would call it a service.

15 MR. HINTON: Yeah. You know, in general it's the
16 facilities that are, that's bringing electricity into the
17 customer's home and that will be carrying electricity back to
18 the grid.

19 MR. ASHBURN: Right.

20 MR. TRAPP: Bill, I agree with you. I think it's the
21 service to the customer. But recognizing the service is fed by
22 the feeders and the rest of the distribution equipment, and I
23 guess the point I want to make so as to not to have an illusion
24 that we're limiting anything with respect to our current rules,
25 if the customer wants to upgrade his service and the feeder is

1 there to do that, the customer can upgrade his service. Now
2 that may require a CIAC or an incremental charge for that.

3 MR. ASHBURN: Right. Right.

4 MR. TRAPP: But we -- there's no --

5 MR. ASHBURN: We size the service to meet the load in
6 the building. Now if he --

7 MR. TRAPP: Right. But if he changes something in
8 the building, typically you're going to have to reevaluate.

9 MR. ASHBURN: We might have to upgrade the service
10 because he's got more load in the building, for example.

11 But if he wants to upgrade the service to X more out,
12 then certainly there would be a CIAC associated with that. Of
13 course, that goes against the theory here that the load is
14 supposed to be serving the load in the building too. So that
15 just depends.

16 MR. TRAPP: Right. Well, and, again, I'm not sure
17 this solves all problems because, again, there may be
18 circumstances where the customer wants something done to his
19 service where the feeder can accommodate it. And if he wants
20 to, he can upgrade the feeder too, if he wants to pay for that.

21 MR. ASHBURN: Right.

22 MR. TRAPP: But if the feeder is there and you were
23 talking about a service drop and we've got to up the wires of
24 the service drop to accommodate a -- I'm not sure that case
25 would -- the more I think about it, that may be a moot point

1 because we're talking about backing down consumption, not
2 increasing consumption. So the wires -- so maybe my example is
3 exaggerated, but.

4 MR. ASHBURN: Yeah. No. I think we've covered it.
5 But, I mean, the point is I'm not sure if this is what's a
6 needed element. But I thought the theory of what you were
7 putting in here was we don't want the back feed from the
8 generator to suddenly blow out the service.

9 MR. TRAPP: To overload the line, right.

10 MR. ASHBURN: I assume that's the, that's the
11 constraint you were trying to add.

12 MR. TRAPP: The existing facilities that are there
13 now, there may be a question about what do you do about
14 changing that service, but we can deal with that --

15 (Simultaneous conversation.)

16 MR. TRAPP: -- under the current body of the rules is
17 my point.

18 MR. ASHBURN: Right. I think so. I think so.

19 MR. HINTON: And the rationale for putting this in
20 here, again, is -- you know, the goal is to be able to create a
21 process where we can get these systems interconnected and up
22 and running and net metering and all that stuff starting as
23 fast as possible. We want to decrease the barriers or the
24 delay to that process. And so by including this, we're looking
25 for something that would be a little more added reassurance to

1 the utility that they wouldn't have to come in and do
2 interconnection studies and this and that. They already know
3 we're already built to this level, they're coming in under
4 that, things are probably good, we can expedite that. Do you
5 think that would accomplish that goal or at least help in that
6 regard?

7 MR. ASHBURN: I think we do. But, you know, that's
8 Tampa Electric. I think we all do.

9 MR. FUTRELL: Yes, sir.

10 MR. SHEEHAN: Mike Sheehan with IREC. A couple of
11 clarifying questions. First off, there is a bunch of numbers
12 that need to be harmonized, and I appreciate your comment, Bob,
13 about the devil in the detail. There's kind of a number that's
14 been used before in the past, and the IEEE 1547 uses 30kW as a
15 threshold limit to start before they start looking at a lot of
16 things. So this Tier 1 at 10kW seems to be extremely low
17 relative to the IEEE 1547. And moving it down from 25 down to
18 10 seems to be a concern of why it was done without
19 understanding what the IEEE requirement was for what I call the
20 minimal size systems.

21 The second comment has to do about 90 percent of the
22 customer's, the utility's distribution feeder rating. I'm
23 concerned with that from a different perspective. Say the
24 existing customer has a 200-amp service, which is typically
25 what a customer may have, but the utility then has a 10kW

1 transformer feeding four customers, three or four customers.
2 It's an old system, it's been there a long time. Does that
3 customer then have to replace the 10kW transformer because all
4 of the sudden they're looking at this 10kW system as being
5 overloading the system? Or if two people have one on their
6 system, now all of the sudden how is that going to be rated?
7 The utility distribution feeder rating seems to be -- feed
8 rating is a concern to me if we don't define where the start
9 point is. And the reason the IEEE took the point of common
10 (phonetic) coupling is that's why it was where it's rated at,
11 not necessarily all the way back in the feeder. And you've got
12 to be very careful how far back the utility system has to be,
13 feed system has to be looked at.

14 MR. FUTRELL: Mr. Ashburn suggested the term of
15 "service."

16 MR. SHEEHAN: "Service" is much better.

17 MR. FUTRELL: So it would -- your suggestion would be
18 "customer's utility service"?

19 MR. SHEEHAN: Correct.

20 MR. FUTRELL: "Distribution service rating"?

21 MR. SHEEHAN: Correct. And then look at the 25, and
22 looking at that, I think the 30 would be much more consistent
23 with the IEEE. And if there's a concern with that -- from an
24 insurance perspective I can see the tradeoff being on insurance
25 but not on a tier, looking at it from a study perspective of

1 what the impact is going to be on the system.

2 MR. HINTON: Well, as far as doing interconnection
3 studies and that type of thing, really adjusting Tiers 1 and
4 2 don't really have an impact on that since Tier 3, the larger
5 systems over 100kW, are the ones that we're saying, yeah, you
6 can do an interconnection study for that. So I don't see why
7 changing the difference between Tier 1 and Tier 2, what impact
8 that would have in what you're talking about.

9 MR. SHEEHAN: The question is why even have a Tier 1
10 and 2? I mean, if you're going to say 100kW is where you need
11 to do a study, if you're looking at it just from an insurance
12 perspective, you know, saying, hey, let's move it down from 25
13 to 10 for insurance and you're saying there's no need to study
14 it above 100, I think -- below 100, I mean, I don't understand
15 why you even have a Tier 2 then.

16 MR. FUTRELL: Gordon.

17 MR. HANSEN: I like the idea of having a Tier 1 and
18 reducing it from 25kW to 10. Because, again, this sets aside
19 what I would call the homeowner/nonbusiness type of generation
20 system. And hopefully we could get a higher return on our
21 installation than you would where you have a business because
22 businesses can write off a whole bunch of this stuff. The
23 homeowner has no alternative. The only thing that the
24 homeowner can get is tax incentives and what he can generate,
25 that's about it; where a business can get the tax incentives,

1 what they generate, and then at the end of the year this is
2 part of their business expenses. So keeping this down to 10kW
3 I believe is a very good idea, and allowing the homeowner,
4 which is, you know, several million people, to be able to look
5 at this thing and say, yeah, I can afford to put something in
6 that will generate and help the environment. Where if you make
7 it 25kW, now you're up in the higher category, you may have to
8 have more insurance, and the argument for homeowner/nonbusiness
9 would start to fade away. Keep it low. Homeowner/nonbusiness
10 is what I think is the way that it should go. So I like this
11 idea. Thank you.

12 MR. GRANIERE: Mark.

13 MR. FUTRELL: Bob.

14 MR. GRANIERE: Gordon, Bob Graniere. Let me see if I
15 understand that. I know I'm getting a little bit ahead of what
16 Mark is doing on the agenda. But what I'm hearing you say is
17 that what you would like to see, keep it at 10 and let the net
18 metering extend all the way through at the retail rate. Is
19 that basically your argument?

20 MR. HANSEN: That is correct.

21 MR. GRANIERE: Okay. Thank you.

22 MR. FUTRELL: Okay. We had a suggestion -- go ahead,
23 Dell.

24 MR. JONES: Dell Jones. You know, from my own
25 perspective owning a 6-kilowatt system, I live in a fairly

1 small sized house and I have less than great orientation.
2 6 kilowatts in my house doesn't really offset my annual energy
3 bill. It would probably take more up to like a 15-kilowatt
4 system. So, I mean, I just really question what the
5 practicality or why 10 kilowatts instead of 25 or 30. I mean,
6 from a residential system perspective and without having to go
7 through a lot of insurance hoops, I think 20, 25 kilowatts is
8 probably more reasonable for some of the larger houses. I
9 mean, if someone has got the discretionary spending to put in
10 these systems, they certainly have the ability to go up to even
11 20 kilowatts and offset a fairly large size house with a
12 swimming pool load, et cetera. But 10 -- my question is really
13 why 10? What was the justification for 10 kilowatts instead of
14 the 25?

15 MR. HINTON: There was some discussion among
16 Commissioners and other commenters during the last workshop
17 about creating a smaller Tier 1 that would be exempt from
18 liability insurance. That's primarily the driving force behind
19 that change.

20 MR. JONES: But the liability insurance basically so
21 that person would have a waiver from getting the, having to
22 provide the insurance requirements? I mean --

23 MR. HINTON: Anybody below 10kW would be, would not
24 be required to have additional liability insurance.

25 MR. JONES: Is that from the perspective of the

1 insurance company?

2 MR. HINTON: From the perspective of this rule and
3 the requirements under the interconnection agreement. Their
4 insurance, their insurance company is something between them,
5 and, you know, that's something for the customer to have to
6 deal with with their own insurance company. But the, what the
7 utilities can require of the customer is what we're addressing
8 here. And they cannot require anybody, under this current
9 draft they can't require anybody under 10kW to take out
10 additional liability insurance.

11 MR. JONES: So does that assume that a 20-kilowatt
12 system is so much more dangerous than a 10, just rhetorically?

13 MR. KEYES: We have comments on the insurance issue
14 too, but I'll wait until we get to the insurance part. Just
15 still on Section (4) I thought I'd bring up one thing.

16 On the, the 90 percent of customer's utility service
17 rating or whatever we use, you might, you might refer to falls
18 within one of the following gross power rating ranges. And
19 then going back to the definitions, I just wanted to say how
20 New Mexico addressed this. Because there's some complication
21 with -- you've got the nameplate rating of the modules, then
22 the efficiency of the inverters. That would seem like an easy
23 calculation, but it depends on temperature too. And so rather
24 than going into a long engineering explanation, they just said
25 let's just say 90 percent of the nameplate rating of the panel.

1 So if you have a 10kW, 10kW of panels, that's the nameplate
2 rating, an inverter that's generally about 90 percent
3 efficient, then we'll say that it's a 9kW AC system. That's
4 the gross power rating. It's a very -- I like the solution.
5 It was very simple, instead of a page written by engineers
6 explaining how it would be calculated each time. And it makes
7 it very clear to the installer when you're still within Tier 1
8 and when you're in Tier 2. So that would be pretty easy.

9 MR. TRAPP: Isn't that what we're doing? The
10 definition of gross power rating is total manufacturer's AC
11 nameplate.

12 MR. KEYES: Right. So it's manufacturer's AC
13 nameplate. So if I go and buy a system --

14 MR. TRAPP: So that number has to be less than
15 90 percent of the utility's number is what the rule says.

16 MR. KEYES: Right. But the trouble is there isn't a
17 manufacturer's AC nameplate. There's a manufacturer's DC
18 nameplate. So I buy my modules, you know, you're running DC,
19 so I have 10kW of DC panels. And then they run through the
20 inverter to turn DC into AC and you have something like a 9kW
21 AC system.

22 MR. REEDY: Bob Reedy. I can comment on that. The
23 inverter will have an AC rating and that's what we should be
24 talking about. If it's a 5kW inverter, that's it.

25 MR. HINTON: Yes. Wherever the AC nameplate is on

1 the system, that's what we're referring to. Whether it's on
2 the generating system itself or on the inverter that converts.

3 MR. KEYES: Right. So the inverter can have -- I can
4 put 4kW of panels in with a 6kW inverter. And so if I'm going
5 on the AC rating -- actually one of the most standard inverters
6 is an SMA 6kW inverter. And so if you take two of those on a
7 system, you would say, okay, that's a 12kW system according to
8 this rule. But if I have 10kW of modules sitting up on the
9 roof and there's some loss actually going through the inverter,
10 I'm not going to be producing more than about 9kW AC. And you
11 really want to capture that in this rule rather than saying,
12 no, we don't want any systems that use two of the most widely
13 available inverters.

14 MR. HINTON: So there could be situations where the
15 AC nameplate on the inverters, you wouldn't actually install
16 the PV systems that would go to the maximum of that.

17 MR. REEDY: That's certainly correct. Often you
18 would oversize the inverters for some reason. And there's even
19 the common thing of planning to come back later and add DC
20 panels later. I guess finding a simple way to, to handle it is
21 the challenge here. And if you make the choice to put in an
22 oversized inverter, you're doing that for reasons that are in
23 your control and not the utility or anyone else. It does seem
24 that you should have to deal with a number.

25 MR. KEYES: I definitely feel you should go with a

1 number. I'm just saying an easy way to do that is to say
2 90 percent of the DC rating of the modules, that you're not
3 going to be putting out more than roughly that amount of power.
4 And that captures a big problem with the practical effect of
5 the standard inverters aren't built to 10kW. It would be great
6 if there was a 10kW inverter and that was the standard that
7 people went to, but there isn't.

8 MR. HINTON: Could you guys work on some, some
9 proposed language to better clarify that situation?

10 MR. KEYES: Is this a good time to go into a comment
11 on (4) (a)?

12 MR. FUTRELL: If we could, let's hold off on that for
13 a moment.

14 Dell.

15 MR. JONES: Yeah. I was just going to say, you know,
16 setting the nameplate rating or the gross power rating of the
17 AC nameplate of the inverter probably would make a lot of sense
18 because even if you have, let's say, a microturbine that ran
19 its energy through the inverter and that was UL 1741 compliant,
20 then, you know, that would be -- it's the device that
21 synchronizes with a utility that we're concerned with. And
22 whether that is an inverter or a series of inverters, maybe it
23 should be clarified under the gross power rating of the
24 inverter or inverters of the renewable energy system. So what
25 fuel goes into that -- for instance, if you used a biomass or a

1 biogas into a microturbine, that would make that microturbine's
2 both electricity and heat 100 percent renewable energy as
3 opposed to, let's say, a microturbine that might use natural
4 gas to produce electricity which would not be renewable
5 electricity, but the waste heat, you know, is another issue.
6 So I was going to say I would encourage really the gross power
7 rating speak to the inverter or inverters that are
8 interconnected.

9 MR. HINTON: What about the situation that we just
10 talked about where you oversize the inverter but you're not
11 actually installing that size of generation?

12 MR. JONES: That gets into this issue of back to
13 again, you know, these Tier 1 and Tier 2. You could have,
14 let's say, 1 kilowatt of DC nameplate photovoltaic panels and
15 you could put in a 5,000-watt inverter or even, let's say, a
16 15,000 with the mind that I'll grow into this and you sort of
17 peg yourself into a certain size. So these tiers, having them
18 fairly low really inhibits people to grow into a system. So,
19 you know, that -- if we want to move forward quickly, I think
20 you should allow more flexibility in the size of the systems
21 that people can grow into or actually install right up-front.

22 MR. FUTRELL: Dell, if you would come up with some
23 language -- we're going to take a break and then have a lunch
24 break later. If you could come up with some language for the
25 definition of gross power rating, that would be helpful. Kind

1 of think about that.

2 Any other comments though on this initial Section (4)
3 and the tiers?

4 MS. CLARK: I wanted to ask for some clarification on
5 the (4)(b) where it says -- it adds the phrase "or other
6 certified device that performs automatic isolation of
7 customer-owned generation."

8 We're just asking for clarification on what that
9 device might be. Because we're -- I have some indication
10 there's unfamiliarity with any other device other than the
11 utility-interactive inverter that was added.

12 MR. FUTRELL: Okay. If we could hold off on that.

13 MS. CLARK: Okay.

14 MR. FUTRELL: And I think we want to take a break.
15 If there's nothing else in (4), that initial Section (4), we'll
16 take a break. And we'll come back and get into (a), (b) and
17 (c).

18 MS. CLARK: Oh --

19 MR. FUTRELL: Go ahead, if you have something.

20 MS. CLARK: No. No. If you're going to get into
21 (a), (b) and (c) -- and I think there's (d), too.

22 MR. FUTRELL: Yeah. Right. Okay. Let's take about
23 a ten-minute break.

24 (Recess taken.)

25 Let's get back started to the, resume to where we

1 left off in Section (4). And before we get into Sections
2 (4) (a) through (g), let's -- Cayce had a few questions to throw
3 out for your consideration.

4 MR. HINTON: Actually it's primarily a question for
5 the utilities and going back to the language about 90 percent
6 of the customer's utility distribution feed rating or service
7 rating. And I had mentioned earlier that the purpose of
8 including that was to give the utility some comfort in
9 expediting interconnection, recognizing that they haven't
10 outbuilt the facilities we already have there so we can get
11 them hooked up and going.

12 I'm just wondering if we can increase even the
13 capacity, the capacity level of Tier 2. With that language in
14 there, what comfort level does it give utilities in
15 interconnecting systems up to 250kW, recognizing, well, we know
16 that they haven't outbuilt the facilities we have to them, so
17 we can, we can expedite interconnection; we don't need to do an
18 interconnection study?

19 MS. CLARK: Cayce, I would only comment that, that as
20 we've gone through these rules and, and other discussion on
21 RPS, one of the things that was of concern is the familiarity
22 with some of these bigger units. And I think staff had asked
23 the question about FPL and hooking up their unit down in
24 Southwest Florida, I think it was. And there were issues that
25 arose with being able to meter a small amount coming in and

1 then a large amount coming out. And I think there was a
2 concern that to the extent you go larger, familiarity with
3 putting in those systems decreases. So there would be a
4 concern in that arena that you see more of the smaller systems.
5 As you gain experience, it would be appropriate to ratchet up
6 that, that kilowatt frame. But I think as you go to the larger
7 systems, it would, there's less familiarity with it and,
8 therefore, I'm not sure that kind of limitation on the
9 90 percent would give comfort.

10 MR. HINTON: Would it be accurate or at least
11 reasonable to say that as you get more experience in installing
12 these larger systems, there would be less and less need of
13 interconnection studies?

14 MR. ASHBURN: I would guess that would -- this is
15 Bill Ashburn. I guess this would depend on experience. As you
16 start having them, if you have problems, then you might not.
17 If you start -- if you've connected enough of them and you
18 don't have problems, perhaps. But, I mean, we don't have a lot
19 of these anyway and we're just starting to hear occasionally a
20 larger one who's talking about perhaps interconnecting. We
21 don't -- like -- as Susan said, we don't have a lot of
22 experience particularly with the larger, anything beyond 10 or
23 20kW yet.

24 MS. CLARK: I don't have -- I can look and see and
25 see if I brought with me the comments that we had filed back in

1 response to the workshops you had early winter, I think. And
2 that was one of the concerns with the various levels was the
3 fact that there wasn't a lot of familiarity with the larger
4 systems and, therefore, how can you standardize something
5 you're not familiar with?

6 MR. HINTON: Yeah. And I remember our conversations
7 along those lines. That's why I wanted to specifically go back
8 to those conversations with this 90 percent qualifier in mind.
9 But if it still doesn't change the situation, familiarity is
10 needed to be developed then. Okay.

11 MR. FUTRELL: Okay. Okay. Let's get into Section
12 (4)(a). This section was moved from a previous area in
13 Section (3) and refers to the certification of equipment. Any
14 concerns with Section (4)(a) as worded?

15 MR. KEYES: This is Jason Keyes from IREC.

16 Yeah. There's a significant concern there. There's
17 rated inverters under the UL standard or under the 1741, but
18 there are no systems that are in compliance with 1547. 1547 is
19 the standard for how you interconnect these systems, which gets
20 back to in our comments we had suggested using the screens as
21 other states have done and as FERC does. The screens are
22 really a shorthand for the rules of 1547. So you go through
23 these nine screens. If you pass them all, then you're in
24 compliance with 1547. The rules will still say you've got to
25 be in compliance with 1547. So the utilities can go back and

1 say somehow the screens didn't capture something.

2 But as far as anyone can tell, the screens seem to
3 capture everything that is important in 1547. So we would
4 encourage you to go back to the screens. Looking at the FERC
5 standards, there's a series of screens and the industry knows
6 those screens well. You can look through in Florida and say,
7 gosh, do all these screens matter to us? And so the IREC
8 standard is a subset of those screens essentially.

9 But if you don't have screens, then what you have is
10 the utilities looking at 1547 in all its glory and going
11 through page by page and saying, gosh, does this system comply
12 with this big rule? And you can simplify that a lot by a
13 series of screens. And if you want to keep the rule nice and
14 short, you could have, you could have the screens as some
15 attachment to the rule or something. But it doesn't need to
16 add a lot of length and complexity to it.

17 MR. HINTON: Where did you say -- you referenced
18 screens that FERC has in place? Which rule?

19 MR. KEYES: Yeah. In the SGIP there's a series of
20 screens.

21 MR. HINTON: Okay. Okay.

22 MR. KEYES: If you'd like, I can -- well, with our
23 comments I can provide that, but I can also just forward that
24 section of the SGIP and also IREC's section of the --

25 MR. TRAPP: That wouldn't help nearly as much as if

1 you'd just amend the language of this paragraph. Do you have a
2 suggested language change here?

3 MR. KEYES: Well, other than to say that, that it
4 meets the screens specified. You can say it meets the screens
5 in SGIP. But I don't know that that would -- if that's
6 something you want to just stick in there to refer to a
7 completely separate set of rules.

8 MR. TRAPP: Again, we're under precious little time
9 here. We need language construction for this rule. You know,
10 concepts aren't going to hack it anymore. We need specific
11 rulemaking language. So I would challenge you in your post,
12 postworkshop comments to, to specifically draft the language
13 you would like to see in this rule.

14 MR. KEYES: Okay. So in the language I would say
15 "has been tested by a laboratory for continuous interactive
16 operation under UL 1741, and meets the screens outlined in the
17 FERC standard generator interconnection procedure which are
18 provided in an attachment here." It would be a two-page
19 attachment to say here's what, here's what all the screens are.
20 But I can certainly propose that for you.

21 MR. FUTRELL: Anything else in (4)(a)?

22 Let's go to (4)(b) about the inclusion of the
23 utility-interactive inverter.

24 MS. CLARK: Mark, we've asked the question about what
25 is meant by the other device, other certified device. The

1 issue for us is we wanted to know what that device would be and
2 how it would isolate the customer-owned generation.

3 MR. HINTON: I was trying to account for systems that
4 wouldn't necessarily need an inverter but still would be
5 required to guard against islanding, that would still be
6 required to disconnect from the grid if the grid lost power.
7 PV systems have inverters. I don't know if a system that
8 generates AC power is going to have an inverter within that
9 system. But they would be required to have some type of
10 utility-interactive device that would shut down or disconnect
11 their system in case the power company lost, the electric grid
12 lost power.

13 MS. CLARK: I'd be interested to know if maybe the
14 people who are potentially interconnected or potential
15 interconnectors have some view as to what this might be and the
16 necessity of having this in the rule.

17 MR. HINTON: So would I.

18 MR. REEDY: Bob Reedy with just a general comment.
19 This could be a small wind generator that might not have an
20 inverter, and that would, as a utility that would concern me if
21 it didn't behave like the inverter did. So I agree with that
22 attempt. I think that's an excellent way to say it is that
23 it's either an inverter that meets all these standards or it's
24 another device that does the same thing as meet all these
25 standards. So that would be an example would be an induction

1 generator, a small wind with an induction generator.

2 MS. CLARK: I would urge you to keep in mind that you
3 are trying to set up a system that streamlines the
4 interconnection and gets these things so that it's fairly
5 standard. And to the extent you introduce something "or other
6 device" that requires some sort of investigation as to what it
7 is and will it do what you think it should do, until you know
8 and it's certified as these others would be, I would suggest
9 eliminating it from the rule. If you need to add it later, you
10 can add it later.

11 MR. HINTON: Well, wouldn't the utilities then
12 complain that if we left it as a utility-interactive inverter,
13 what would that do to the systems that don't utilize an
14 inverter? Would the utility then come in and say, well, we
15 can't interconnect them because they don't have an inverter
16 capable of, you know, anti-islanding function? I was trying
17 to, in framing that language like I did I was trying to
18 actually give you guys more comfort, and knowing that your
19 concern about islanding is going to be addressed even if they
20 don't have an inverter. They have to in some way have a device
21 that automatically disconnects from the grid. But I also
22 didn't want to leave it as just utility-interactive inverter
23 because there's a lot of technologies out there that do not use
24 inverters.

25 MS. CLARK: I would just like to know if there's --

1 what they might be and who, what they would be needed for. I
2 mean, I --

3 MR. TRAPP: Could I, could I offer this suggestion?
4 Your suggestion is to delete the language. What if we were to
5 change the language to read "or other device certified by the
6 utility and approved by the Commission"?

7 I mean, right now it's referring back to (4)(a),
8 which is certification by a national laboratory here or other
9 independent authority. To the extent that you have a non-DC or
10 an AC type of machine that you have to address the issue of
11 automatic disconnect on, it seems to me that the utility would
12 want to be very interested about making sure that device,
13 whatever it is, is there. And at the same time we don't
14 totally trust utilities, so it would be subject to Commission
15 approval.

16 MS. CLARK: In other words, the person who would want
17 to connect in that way would have to come and get the approval
18 of the device or the utility?

19 MR. TRAPP: They'd bring the device to the utility
20 first and then hopefully y'all worked it out. And if you
21 didn't, then the Commission would have to approve it.

22 MS. CLARK: And that wouldn't -- that sort of takes
23 them out of any fast-track interconnection?

24 MR. TRAPP: Once you do it once, I assume that it
25 becomes standard. Do we have to clarify that in the rule as

1 well?

2 MS. CLARK: I think I understand what you're
3 suggesting.

4 MR. FUTRELL: Bill.

5 MR. TOTH: Bill Toth with All Source Energy. In
6 (4) (b) it refers back to (4) (a), which then refers back to
7 Section (3), which is all the IEEE and UL standards. So I
8 think you've kind of covered the bases by referring back to all
9 of the UL or all of the standards in Section (3).

10 MR. TRAPP: And refresh my memory again. What do the
11 UL standards say with respect to noninverter type systems? Did
12 you address that at one time?

13 MR. JONES: It's UL 1741. It's basically
14 anti-islanding, disconnect from the utility grid. It's a
15 protocol for inverters with, interacting with the grid. More
16 than inverters. Right.

17 MR. TRAPP: So if it has that UL certification, then
18 it should be fine; right?

19 MR. TOTH: Bill Toth. What it says is, "Inverters,
20 converters, controllers and interconnection system equipment
21 for use with distributed energy resources." That's what
22 1741 says, or the title.

23 MR. REEDY: Bob Reedy. To try and answer the
24 examples that might come up, I did mention a small wind that
25 had an induction generator. Probably the more common thing in

1 Florida will be a biogas, an anaerobic digester on a farm that
2 uses either a reciprocating engine or which drives in turn a
3 rotating machine which could be either a synchronous generator
4 or an induction generator and, or a microturbine. There are
5 some microturbines that do have rotating machines. A lot of
6 them use inverters. So -- but those -- that would be, in my
7 mind, the things that could come up in the foreseeable future.

8 And I would, would follow along with the last comment
9 on the last gentleman here, that if you point right back to
10 Section (3), it's very objective. It says whether it meets it
11 or not. There is no judgment needed by the utility or anyone
12 else. If it meets it, it meets it. If it doesn't, it doesn't.
13 It seems like it would be a fine way to go with the language
14 that's here. It's either an inverter that meets that or it's a
15 device, some other device that meets that, a disconnect
16 protection control scheme that meets that, behaves the same
17 way.

18 MR. TRAPP: And if it has a UL tag, it's assumed to
19 have that device in it; is that correct?

20 MR. REEDY: If it meets those standards.

21 MR. TRAPP: Yeah.

22 MR. REEDY: I mean, it would have, it would have
23 circuitry that would disconnect the device under those
24 conditions.

25 MR. TRAPP: Yeah. Again, Ms. Clark, our concern is

1 completeness with respect to the technologies that may be out
2 there. And we're not just talking about DC inverters, we're
3 talking about rotating machinery as well. And I'd ask you to
4 look at the language again and let us know if you still have
5 concerns about it. But I think staff was thinking that it was
6 covered by the references back to the UL standards.

7 MR. HINTON: Ms. Clark, is it the phrase "or other
8 device" that you have a problem with because it's too vague?

9 MS. CLARK: We were looking more for clarity as to
10 what those devices may be and if you all or anyone who is
11 participating had any specifics as to, as to what they might
12 be.

13 MR. HINTON: The phrase I keep seeing in UL 1741 is a
14 utility-interactive inverter and interconnection system
15 equipment, or interconnection system equipment. I personally
16 don't have any examples to give you. I was just trying to be
17 broad enough to capture this other possible equipment while
18 still requiring this anti-islanding function.

19 MS. CLARK: I think the explanation on our part is
20 that the people we have been working with who are familiar with
21 the inverter-based technology and how that works and with these
22 interconnections that have taken place that use, that would
23 fall under this rule, there was a concern about not knowing
24 what these other devices may entail and what you had in mind.
25 I will check more specifically as to whether or not if it is

1 certified and in compliance with (3), then does that give the
2 level of comfort that there's not anything out there that they
3 would have concern with interconnecting?

4 MR. HINTON: Yeah. And, again, it goes back to
5 Mr. Reedy's example. What was in mind was an anaerobic
6 digester generating AC electricity wanting to interconnect with
7 your system and trying to address the concerns that you would
8 have about islanding, and not knowing what they would use, but
9 just requiring some form of equipment that performs this
10 function and is certified UL 1741.

11 MR. TRAPP: I think also the rule provides protection
12 to both parties in these instances. If the utility doesn't
13 believe the equipment is up to par, you can always handle it
14 through a dispute process. If you can't resolve it amongst
15 yourselves, there's always the fallback to come to the
16 Commission for resolution. And, again, our intent here is to
17 expedite these things. If it's got UL approval, it's presumed
18 protected until you bring it to us and show us it's not, so.

19 MS. CLARK: That's helpful. Thank you.

20 MR. TRAPP: Thanks.

21 MR. FUTRELL: Okay. Anything else on (4)(b)?

22 Let's move down to (4)(c), talking about the testing
23 required. Any comments in (4)(c)?

24 Okay. I think Cayce made that comment earlier that
25 on Line 21 that you'll substitute (6) for the (5) that's listed

1 there.

2 MR. HINTON: I guess since we're on this page too, it
3 was pointed out that some language that we had dropped back in
4 subsection (3) addressing -- we dropped the language that says
5 "applicable equipment" or "applicable standard" -- where am I?
6 Yeah. "As applicable" in referring to the three different
7 standards, we dropped that. Forgot to catch that in subsection
8 (a) where it still says "system in compliance with the
9 applicable codes and standards." We're going to drop
10 "applicable" from that and just refer back to the codes and
11 standards.

12 MR. FUTRELL: And that's on Line 13, Page 3 at the
13 end of the sentence.

14 MR. HINTON: Yeah.

15 MR. FUTRELL: Okay. Moving on. We've renumbered
16 (d), and in (e) we've replaced the term "an itemized accounting
17 of" with "itemized cost support for." Any comments on (e)?

18 MS. CLARK: Mark, can I just ask?

19 MR. FUTRELL: Sure.

20 MS. CLARK: Did you ask for questions on (d) or --

21 MR. FUTRELL: Yes. I didn't see anything. Do you
22 have comments on (d)? Go ahead.

23 MS. CLARK: Oh, I'm sorry. I must have misheard.
24 No. As you may recall from our comments, one of the things
25 that we noted at the workshop was it didn't -- we didn't

1 understand those potential customers and suppliers and our
2 installers feeling like the waiving of the fees and charges was
3 a necessary part of the rule, that what was really important to
4 them was the net metering. And in our comments particularly
5 Gulf Power and Progress felt that there should be no waiver of
6 those fees because it does result in the subsidization of those
7 customers by other customers.

8 Gulf Power and Progress continue to believe that the
9 fee should not be waived since it does result in other
10 customers subsidizing the expenses for the net-metered
11 customers.

12 MR. FUTRELL: What do those fees amount to? Do you
13 have that information?

14 MS. CLARK: I believe we previously provided it to
15 you in our letter that we sent back in June and May. And let
16 me just find those and verify that those numbers are correct,
17 if I could.

18 MR. FUTRELL: Sure.

19 MS. CLARK: I know I have it here somewhere because I
20 looked at it just a few minutes -- let me. If you don't mind,
21 I want to make sure, give it to the folks in the room, and let
22 them check it.

23 MR. FUTRELL: Okay. We can come back to that.

24 Anything else in (4)(d)? Okay. We talked about
25 (4)(e) and the change there. Comments on (4)(e)? Okay. (F),

1 can the change in the utility designation --

2 MR. JACOBS: I have -- this is Leon Jacobs. My
3 question is a general question, I think, that goes really to
4 (e), (f) and maybe (g) also. And that is there, is there some
5 thought as to how the cost support will be defined? What would
6 be the, the cost basis that will be looked to in assessing
7 whether or not a fee for interconnection is reasonable or not?

8 MR. FUTRELL: I would consider that to be hashed out
9 in the implementation when the tariffs were filed with the
10 agreements and the staff would review that. The Commission
11 would ultimately review and approve or suggest changes to those
12 fees. The implementation phase is where we'd address that.

13 MR. JACOBS: Okay. And will there be opportunity for
14 public participation?

15 MR. FUTRELL: Absolutely.

16 MR. JACOBS: Okay. Thank you.

17 MR. TRAPP: Commissioner Jacobs, did you have any
18 specific requirements you'd like in there? I mean, obviously
19 to me the fees would be cost-based would be a requirement. You
20 mentioned public, opportunity for public input. Would you
21 rather --

22 MR. JACOBS: And, quite frankly, I'm not, I'm not
23 educated enough at this point to give you some specifics, but I
24 would want to, to make sure that conceptually the costs are
25 fair and reasonable. But also not -- and going back to

1 actually your process, they're balanced enough so they're
2 encouraging participating more so than dissuading
3 participation.

4 So at this point that's my only concern is how do you
5 make sure that those costs are fair and even, evenly balanced
6 so that they don't discourage participation? But as to actual
7 specifics, I'm not able to give you those at this time.

8 MR. TRAPP: Okay. Well, my concern in this is I'm
9 given an understanding in rulemaking that we have to be very
10 careful that we define our process. And to the extent that
11 there's going to be some consideration by the Commission of
12 these factors, to the extent that we can define how the
13 Commission is going to consider those, I recognize the point.
14 So to the extent that --

15 MR. JACOBS: That's exactly -- we're exactly on the
16 same point.

17 MR. TRAPP: If we need to tighten that up, I would
18 appreciate you giving us some comment on it.

19 MR. JACOBS: I'll commit to you that I will go back
20 and get some background and provide you comment on that.

21 MR. TRAPP: Thank you.

22 MR. JONES: This is Dell Jones. I just have a
23 concern with regard to the comment maybe that Gulf Power and
24 some of the other ones have on the waiver of the insurance and
25 fees. You know, the administration of keeping track of all

1 these individual small system owners and whether they have
2 insurance or not and if they're in noncompliance, rolling a
3 truck out, locking up the disconnect and then rolling another
4 truck out to unlock it once they comply, all those costs are
5 now captured and rolled up and borne by all of those people
6 that ultimately interconnect, and that, you know, it's not
7 fair, you say, to transfer the costs to other, other ratepayers
8 that are not interconnected. Just the administration and the
9 process of a full-time employee maybe spending so much time
10 tracking insurance requirements, who's insured, who's not. If
11 you change insurance companies, you have to go back and tell
12 the interconnecting utility that you've done so. And, again,
13 all of those fees for something that seems to be a fairly
14 minor, you know, issue, that it just seems onerous to have such
15 a big burden, the administrative costs borne by all of those
16 participants who have interconnected.

17 And, you know, and they're -- again, if they're
18 allowed recovery of these and through the fees of the other
19 interconnected customers, then it could sort of really take a
20 lot of the potential cost savings of the solar system out of
21 your, your cost. And, again, if it's a one-time fee, that's
22 one thing. But I see this as an ongoing issue to track
23 somebody's insurance on an ongoing basis. And who is going to
24 do that? And it just seems an administrative burden that's not
25 really all that necessary for the smaller system owners.

1 MS. CLARK: I do have some information, and this is,
2 this is covering the application fee and the metering costs.
3 For Progress Energy the application fee is \$95 and the
4 metering -- let me see. I just had it. The metering was \$125.
5 For Gulf at this -- at least under the PV rules there was no
6 fee for the under 10 megawatts, but the metering cost was \$250.
7 And then there was the \$20 per month for the phone line to
8 allow the remote metering, meter reading.

9 MR. FUTRELL: Thank you. Any other comments on (4)?
10 We've gone over Page 4, (f) and (g). Okay. Let's move on
11 to -- do you have questions, Cayce?

12 MR. HINTON: Just in the abundance of caution I
13 wanted to make sure that we're not leaving anything out. I was
14 wondering if, you know, other than the fees waived under,
15 (4)(d), are there costs that we are not accounting for in here,
16 whether it's interconnection costs? What has not been
17 addressed, you know, and who should pay these costs? I just
18 want to make sure that we're not creating, you know, yet
19 another proceeding down the road because we forgot to address a
20 cost that will need to be recovered by somebody.

21 MR. HANSEN: I have a comment.

22 MR. FUTRELL: Gordon.

23 MR. HANSEN: We're talking about costs to the utility
24 company, but there's also a benefit to the utility company if
25 you have distributed generation. One of the main benefits is

1 that they do not have to transport the power over long
2 distances. So the I-squared (phonetic) losses or the magnetic
3 losses in the line are eliminated when you have distributed
4 power, and that's an immediate financial gain to the power
5 company. So it's not all loss. Thank you.

6 MR. KEYES: Jason Keyes from IREC. I just wanted to
7 clarify my reading of this. (4)(d) says that Tier 1 customers
8 aren't going to get charged an application fee. They're also
9 not going to get charged any other fees on top of what retail
10 customers without PV or without renewable energy are charged.
11 And (e) just says application fees; it's not talking about
12 anything else, as I understand it. So I just wanted to clarify
13 that all we're talking about there is the fees to consider an
14 application.

15 And since we're talking about fairly small numbers, I
16 don't know that it's worth going through a whole tariff
17 proceeding to figure out by utility how much time and energy
18 they're going to spend going through an application. We're
19 talking about something that, for a Tier 2, you know, you might
20 be charging \$200 or something. You could just set a limit
21 based on what other, other states or FERC have done and
22 sidestep that whole procedure.

23 And also I wanted to share from Excel Energy when
24 they were in New Mexico, they were talking about their
25 experience in Minnesota and Colorado, that at first when they

1 were going through application, through applications, they
2 would go and look at each system very carefully and go out and
3 do an inspection of the system. And as they got familiar with
4 some of the installers, they, they could step back and say,
5 okay, well, this is from the ABC installation company. You
6 know, we've approved 50 of them already. You know, we'll just
7 stamp that approved and it takes very little time now. And
8 especially in Colorado, once they went to a straight max
9 application fee, they changed their procedures so they didn't
10 go out and look at every one. They just said, well, we know
11 the ones -- you know, we can use common sense and say this is
12 just like the other 20 we've, we've checked and so we can
13 approve it.

14 So if you ask for itemized costs, then you'll get the
15 response of a utility saying, well, we're going to be as
16 cautious as can be. We're going to go and check through each
17 one individually in great detail and you'll get a high cost.

18 MR. HINTON: Well, we're not talking about an
19 application fee that will be done on a case-by-case basis.
20 We're talking about when they file their agreement, they're
21 going to file an application fee that would be applied to
22 everybody and they'll have to itemize those costs. So we're
23 not talking about each time somebody wants to interconnect
24 they've got to go out and take a look at the system and
25 determine, you know --

1 MR. KEYES: Yeah. I understand. But I'm saying if
2 you, if you let a utility set that cost, they'll say here's
3 what we're going to go through each time. We're going to need
4 to inspect the system and we're going to go out and do an
5 on-site inspection, and so it's going to cost us \$600 for each
6 one. But if you come in and say the application fee is going
7 to be \$100 for a 20-kilowatt system, it's amazing how they will
8 streamline their process.

9 MR. TRAPP: Again, I'd suggest this is an
10 implementation issue, not a rulemaking position. I mean, what
11 are your rule changes? The proposed rule says "utility may
12 propose for Commission approval." It doesn't say that they're
13 going to charge any fees. It says they will propose them in
14 their tariff filings for Commission approval. And, you know,
15 I've already committed to you that staff intends to try to
16 consolidate those into as much of a uniform tariff as possible,
17 and we would expect the fee structures in those tariffs too to
18 be uniform and defensible by the, by the utilities. So, again,
19 going to the rule, do you have word changes to the rule? Do
20 you just want to eliminate the section or --

21 MR. KEYES: Not eliminate the section, just say that
22 the application fee shall not exceed, say, \$1 per kilowatt.
23 And --

24 MR. TRAPP: What's the basis for the number? Where
25 is your evidence?

1 MR. KEYES: The utilities that have done lots and
2 lots of inspections, say PG&E in California or Excel in
3 Colorado, have been able to handle applications at that sort of
4 rate. But if you want to know what a reasonable number is, you
5 know, it would be helpful to give the utilities some guidance
6 about that. Because for the individual tariff filings you're
7 not going to get anybody else in the hearings besides the --
8 you know, when it comes down to these fees I won't be back,
9 industry representatives won't be back. And I have faith that
10 you'll do a good job in keeping them reasonable, but it seems
11 like this is a good opportunity to just put a cap on that.

12 MR. TRAPP: I'd suggest you put that in rulemaking
13 language with your supporting evidence and file it in your
14 postworkshop comments and they'll be considered.

15 MR. KEYES: Okay. Will do. Thank you.

16 MR. FUTRELL: Okay. Anything else in Section (4)
17 before we leave it?

18 Okay. Section (5), the contents of the agreement.
19 Especially as you get down to (a)(2) on the testing procedures,
20 we've made some changes about the testing procedure and timing
21 and notification there. Any comments in (5)(a)(2)?

22 MS. CLARK: Mark, perhaps this is a good time just to
23 sort of ask a question and make an observation. And this would
24 be relevant to, I have it listed as (5)(a)(2), (5)(a)(4),
25 subsection (6), subsection (7) and (7)(d).

1 You might recall that we made several suggestions, we
2 being the IOUs, that would help assure compliance with the
3 rules, and these included requiring annual testing of the
4 customer equipment, requiring customers to update insurance
5 annually, requiring them to submit proof of insurance at the
6 time of application, and also permitting disconnection if
7 customers fail to provide proof of insurance. We noted that
8 those changes were not made. And we felt that they were
9 appropriate changes to ensure compliance with the rule, ensure
10 compliance with the insurance requirements and safe operations.
11 And we just would like you to give some thought and give an
12 explanation, if you could, as to why you thought it was
13 appropriate to delete those things that would allow the
14 utilities to verify that the rules have been complied with.

15 MR. HINTON: As far as the proof of insurance,
16 personally I figured that that would just be something that you
17 would include in your application, that that would be
18 information that the customer, you know --

19 MS. CLARK: That's helpful.

20 MR. HINTON: Along with certifying -- you know, any
21 information you need to execute the agreement, they would be
22 notified of that and then they would submit that as part of the
23 agreement.

24 As far as disconnecting for lack of insurance, that's
25 still in here under the manual disconnect where it was. We

1 just moved the whole section up.

2 MS. CLARK: I may have misread it. I apologize.

3 MR. HINTON: That's okay. Subsection (6)(b)(4).

4 It's one of the conditions for disconnect with the manual
5 disconnect switch. And I'm sure that'll be a matter for
6 discussion in a little while.

7 As far as the yearly inspections, I anticipate that
8 being part of the discussion today, but I didn't have any
9 particular -- I don't have any proposed language in that
10 regard, but I was fully expecting that to come up today for
11 further discussion.

12 MS. CLARK: Let me just ask a question. So, so that
13 you have "for failure of the customer to maintain the required
14 insurance." I guess let me be more specific. Would that
15 include the failure of the customer to provide proof of
16 insurance when asked for it?

17 MR. HINTON: Well, I guess that would be how you
18 would find out if they had failed to keep the required
19 information is if they refused to provide you with proof.

20 MS. CLARK: Okay. Thanks.

21 MR. GRANIERE: Could I ask a question, Susan, about
22 that part about finding the proof of insurance all the time?
23 When we do cars, we show up there once a year and we renew a
24 license and then we show the proof of insurance. But here that
25 doesn't happen. So are you suggesting that once a year the

1 utility sends them out a little envelope that says, do you have
2 insurance, and they say, yes, and they mail it back?

3 MS. CLARK: Bob, I certainly think there are ways
4 that that can be administered, and that may be one of the ways
5 that it can be done. I think we just wanted to assure that
6 that is something that can be asked of the customer.

7 MR. GRANIERE: Okay.

8 MR. HINTON: I'd be interested, just in response to
9 what Susan said, from the solar guys, the need for yearly
10 inspections by the utility to make sure that the system is
11 running as it should. Even though the standard interconnection
12 agreement will require you to do that, what are your thoughts
13 on the utility being able to come out and inspect yearly?

14 MR. REEDY: Bob Reedy. There should be no need for
15 any maintenance of a solid state system, which the PV systems
16 will be. There's nothing to change or nothing to go wrong.
17 And the customer is motivated if something goes wrong because
18 it will not produce the energy that they've paid the system,
19 they bought the system to produce. So I can't find a reason
20 for an inspection on a yearly basis. And I would, in fact, see
21 that as an administrative nightmare and somewhat of a barrier
22 to continued operation if there had to be -- would that imply
23 then that if the inspection wasn't made on time, that we could
24 continue to operate or would we have to shut down? And all
25 those questions come up.

1 MR. HINTON: Susan, I have a question for you. When
2 you talk about the yearly inspections, are you suggesting that
3 the utility will come out and inspect each system?

4 MS. CLARK: I think the way we had proposed it would
5 be the customer responsibility. But let me, let me check on
6 the specific language that we suggested.

7 MR. TOTH: Bill Toth. I would suggest, as he said,
8 there is not a lot that can go wrong with one of these systems.
9 And until someone can show that annual testing is required, the
10 onus should not be on the customer.

11 MS. CLARK: Cayce, the specific change we suggested
12 was to old (5) -- no, I'm sorry. Let's see. (5)(a)(2). "The
13 electric utility shall have the right to have personnel present
14 at initial testing and may require annual testing of customer
15 equipment and protective apparatus." So we were not specific
16 as to the utility going out there or the customer providing
17 that information on the annual testing. I think it could go
18 either way.

19 MR. HINTON: Yeah. I remember when I read your
20 language, because it was in combination with coming out at the
21 first test, my thought -- when I read that language that you
22 proposed, it was that the utility would come out and inspect
23 each year. That's why I thought I'd clarify now.

24 MR. TRAPP: I'm concerned about the open-endedness of
25 the statement. You say the utility may require annual testing.

1 For what cause? Taking their point, shouldn't there be cause
2 for testing? You're just going to test to test? If it's not
3 broken, don't fix it. So, I mean, unless you've got a good
4 reason to go out there and request testing, why do you need to
5 test it on a rigid annual basis?

6 MR. ASHBURN: Well, I think it said "may require."
7 And as Bob was saying --

8 MR. TRAPP: There you go again. We don't trust you
9 though. "May" is too broad.

10 (Simultaneous conversation.)

11 We can drive trucks through "may."

12 MR. ASHBURN: Bob was articulating about solar. This
13 is about renewable, it isn't just about solar, and there may be
14 devices that do have issues that need to be tested.

15 MR. TRAPP: I'm just suggesting that if you were to
16 improve your language where you couldn't drive a truck through
17 it and say "may for good cause" and then define what that cause
18 is -- for instance, creating harmonics on the system, it's
19 creating overloads on the system, it's whatever.

20 MR. ASHBURN: Well, let me -- I don't know enough
21 about some of this. But let me give you an example where we
22 may not have a cause and may want to look. They were
23 discussing down there earlier about the inverter versus the
24 solar arrays. What if somebody put in an inverter as they were
25 talking about, a much larger inverter than the solar array they

1 put in in the first place, and then, as they said, someone
2 might do that because they want to add solar arrays later,
3 would we know? I don't know if we would find out if someone
4 put two or three more solar arrays on someone's roof. And,
5 again, we wouldn't know then whether that might cover
6 90 percent of the service or -- I don't know what all the
7 reasons are. The reason is -- the objective is to allow us
8 some ability to require a, a review or a looking back at the
9 equipment, testing of it, in case something is there that
10 concerns us.

11 MR. TRAPP: At their cost. And I think what I'm
12 hearing on their side of the table is that you can use that as
13 a harassment technique. So I'm suggesting better language.
14 You want access, fine. Ask them for access at your cost. You
15 got a suspicion, send a guy out there, have him eyeball it. If
16 it's not meeting specifications, if he's put in too much stuff
17 that he's not supposed to have, you can challenge him on that
18 point. If there's a dispute, you can bring it to the
19 Commission. I think what they're asking for is some
20 reasonableness to the fear that the utilities want everything
21 on their side, we want, we want, we want, and what they're
22 ready to say is we don't want you, we don't want you, we don't
23 want you. And I don't think that's what we're here about at
24 all.

25 MR. ASHBURN: Well, I don't think that was the intent

1 of it either, Bob.

2 MR. TRAPP: So I'd challenge you to improve your
3 language.

4 MR. ASHBURN: We will attempt to improve the
5 language.

6 MR. TRAPP: Thanks.

7 MR. KEYES: Just a follow-up comment. As far as I
8 know, no state requires annual inspections of existing systems.
9 The standard is to say if there is a change in the system, if
10 you're going to change the design of the system, for instance,
11 by adding more modules, then you have to go back through and go
12 through the process again, the application process again.

13 MR. FUTRELL: Okay. Any other comments on (5)(a)(2)?
14 Okay. Section (3), specify the customer's generating
15 equipment. And if no comments, we'll move to (4), which is the
16 indemnification language. We've moved that and tried to
17 clarify that.

18 MR. TOTH: What are we clarifying?

19 MR. FUTRELL: Well, it's to try to make it, try to
20 make the language a little more clear on what we were talking
21 about there.

22 Bob.

23 MR. REEDY: Bob Reedy with a bit of a problem here in
24 the notification of initial testing. That sort of begs that
25 there is initial testing. The testing of these systems is done

1 in the laboratories and by UL and the manufacturers. They are
2 assembled in the field and they are commissioned, but they're
3 not to be commissioned until the utility, everything is in
4 order and the utility has been notified. So it's a little
5 bit -- this language seems to create the idea that every system
6 is going to be, there's going to be a ceremonial test of some
7 kind and someone could be there to witness it. There won't be
8 anything to witness. The system is, meets all the standards
9 and codes. The electrical inspector has said it's approved.

10 MR. TRAPP: Instead of "inspect," would "install" be
11 a better word? You're talking about Line 3 on Page 5?

12 MR. REEDY: Before it's --

13 MR. TRAPP: Oh, we went someplace else.

14 MR. REEDY: On Line 22 on Page 4.

15 MR. HINTON: Yeah. That, that language was in the
16 original PV rule. You can see the language just above that
17 that's scratched out and that's stricken. That's the language
18 from the original PV rule, and we adjusted it based upon
19 somebody's comments about some notification and then making
20 sure that it was clear that the customer didn't necessarily
21 have to hold the things up until the utility was available, but
22 the utility had to actually -- the customer lets them know when
23 it is, they can be there or not be there, but it's the
24 utility's choice.

25 MR. REEDY: And I confess to just now thinking about

1 this. And I just think that it creates an inappropriate, I
2 mean, an expectation that doesn't exist. There is no testing,
3 there's no, nothing to witness.

4 MR. HINTON: I guess what I'm thinking about is what
5 I read that to mean is we've got it installed, we're flipping
6 the switch on this date to see if it works.

7 MR. REEDY: There you go. There you go.

8 MR. HINTON: So you guys can come out and see.

9 MR. REEDY: You want to look at it before we flip the
10 switch?

11 MR. TRAPP: The words "enter in service" instead of
12 "testing." We should --

13 MR. REEDY: Commissioning or in service.

14 MR. TRAPP: Commissioning, in service. Okay. Do
15 y'all have a problem with that, Susan?

16 MS. CLARK: As I've heard him speak, that is what we
17 are focusing on is before it goes into service now. Now I'm
18 not sure that language he suggested will do it, but that is
19 the, sort of the tipping point that we're looking at.

20 MR. HINTON: Well, I think this is separate from the
21 inspections of the equipment that's provided for later on.
22 This is -- you're going to be flipping the switch and turning
23 the stuff on for the first time is my impression of this
24 language from the original rule. And the utility, you can be
25 there if you'd like to see them turn it on for the first time

1 and see, make sure it's functioning normally.

2 As far as there's some other inspections that you can
3 come later, I guess that's, you know, that we provide for so
4 that you can go out and make sure that they comply with all the
5 different sections of this rule as far as, you know, the
6 equipment and that type of thing. But this was just, you know,
7 we're turning it on. You can come out and eyeball it if you
8 want when we do that.

9 MR. BRANDT: Yann Brandt with Advanced Green
10 Technologies. I had a similar concern as Bob because it is
11 just flipping a switch, and testing to me refers to something
12 that initiates an inspection and a report afterwards. Are we
13 saying that we want a report for every system that the switch
14 is flipped or -- because it is such a standard that is approved
15 by FSEC or similar institutions, UL, according to the test
16 guidelines. I don't think a testing report or an engineering
17 report is necessary for every installation or testing per se
18 for every system that goes into service.

19 MR. HINTON: Can somebody suggest some rule-like
20 language for turning it on?

21 MR. TRAPP: Yeah, I will. I have the sentence read,
22 "The customer shall notify the investor-owned utility at least
23 ten days prior to initially placing the equipment in service,
24 and the investor-owned utility shall have the right to have
25 personnel present on that date to observe such turn on."

1 MR. HINTON: By "in service," are you distinguishing
2 that from running in parallel with the utility's system?

3 MR. TRAPP: If you want to refine that to "placing in
4 service in parallel with the electric utility."

5 MR. HINTON: Well, I think this should be different
6 from that because there are certain inspections that need to
7 take place before they run in parallel with the utility. But I
8 think this is more just --

9 MR. TRAPP: So we're not talking about turning on
10 then.

11 MR. HINTON: Well, I think we're talking about
12 turning on, but just it's, you know, before you run in
13 parallel, you're also going to turn it on once or twice to make
14 sure that it's been installed properly, I would assume, and
15 that's generating electricity.

16 MR. REEDY: I'm sorry. Bob Reedy. The system can't
17 run standalone. It has to be --

18 MR. HINTON: That's true.

19 MR. REEDY: It's energized, it's ready to go.

20 MR. TRAPP: The inverter, the inverter sinks it --
21 right when you turn it on the inverter sinks it; right?

22 MR. JONES: Depending on the inverter, it takes, you
23 know, a couple of minutes, five minutes to get in sync. It
24 goes through a set of startup and synchronization, recognizing
25 the voltage, the current.

1 MR. HINTON: Okay. Then I, I think I was probably
2 reading this rule wrong and it probably is talking about the
3 initial coming in service then. That would make sense.

4 What was your language again, Bob?

5 MR. TRAPP: Well, again, open to a better suggestion
6 either now or in your postworkshop comments. "The customer
7 should notify the investor-owned utility at least ten days
8 prior to initially placing the equipment in service," and then
9 skip to "and the investor-owned utility shall have the right to
10 have personnel present on that date."

11 MS. CLARK: Bob, if I could ask that maybe we could
12 look at that a little bit over lunch.

13 MR. TRAPP: Sure.

14 MS. CLARK: Because I think there are circumstances
15 where it's not necessarily looked at on that date. Ahead of
16 time they look at, they observe that it's done well and they're
17 fine with it and they don't need to be there on that date that
18 it's turned on because they are, they've already made the
19 inspection. But I want to clarify that, and I think perhaps
20 over lunch we can come up with language that would be
21 appropriate.

22 MR. TRAPP: Oh, yeah. That's fine. As long as you
23 have specific rulemaking language.

24 MR. ASHBURN: I think we're getting that hint.

25 MS. CLARK: I heard you.

1 MR. FUTRELL: Okay. Since we're getting into the
2 noon hour, before we launch into indemnification, which I'm
3 sure we'll have a long discussion on that, let's take a lunch
4 break and gather our thoughts and come back at 1:30.

5 (Lunch recess.)

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STATE OF FLORIDA)
 :
COUNTY OF LEON)

CERTIFICATE OF REPORTER

I, LINDA BOLES, RPR, CRR, Official Commission Reporter, 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' attorneys or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 19th day of October, 2007.

Linda Boles
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