	BEFORE THE
FLOR	IDA PUBLIC SERVICE COMMISSION
	DOCKET NO. 070098-EI
In the Matter o:	
	TERMINATION OF NEED
ELECTRICAL POWER	R PARK UNITS 1 AND 2 R PLANTS IN GLADES
COUNTY, BY FLOR. COMPANY.	IDA POWER & LIGHT
	IC VERSIONS OF THIS TRANSCRIPT ARE
A CON	IVENSIONS OF THIS FRANCOULT FACE IVENIENCE COPY ONLY AND ARE NOT FICIAL TRANSCRIPT OF THE HEARING,
THE .PDF V	VERSION INCLUDES PREFILED TESTIMONY.
	VOLUME 2
	Pages 158 through 280
PROCEEDINGS:	HEARING
BEFORE:	CHAIRMAN LISA POLAK EDGAR
	COMMISSIONER MATTHEW M. CARTER, II COMMISSIONER KATRINA J. MCMURRIAN
DATE:	Monday, April 16, 2007
TIME:	Commenced at 9:30 a.m. Recessed at 5:40 p.m.
	Betty Easley Conference Center
PLACE:	Room 148 4075 Esplanade Way
	Tallahassee, Florida
REPORTED BY:	MARY ALLEN NEEL, RPR, FPR
APPEARANCES:	(As heretofore noted ) DECMENT NUMBER-DATE
FLOR	IDA PUBLIC SERVICE COMMPSIZES 9 APR 17 5
	FPSC-COMMISSION CLERK

		-
1	INDEX	
2	OPENING STATEMENTS	
3		PAGE
4	Opening Statement by Mr. Litchfield	188
5	Opening Statement by Mr. Beck Opening Statement by Mr. Gross	198 200
6	Opening Statement by Ms. Perdue Opening Statement by Mr. Krasowski	206 209
7		
8	WITNESSES	
9		
10	NAME	PAGE
11	JANICE BLAIR	
12	Direct Statement by Ms. Blair	161
13	BETTY JOHNSON	
14	Direct Examination by Ms. Johnson	167
15		
16	ARMANDO J. OLIVERA	
17	Direct Examination by Mr. Litchfield Prefiled Direct Testimony Inserted	216 218
18	Cross-Examination by Mr. Gross Cross-Examination by Mr. Krasowski	252 274
19	Cross-Examination by Ms. Brubaker	277
20	CERTIFICATE OF REPORTER	280
21		
22		
23		
24		
25		
	FLORIDA PUBLIC SERVICE COMMISSION	

				1	ę
1					
2		EXHIBITS			
3	NUME	BER	ID.	ADMTD.	
4	2	Comprehensive Exhibit List	1 7 7	1 7 7	
5	3	AJO-1	1//	177 278	
6	155		100	270	
7	156	-			
				1.0.0	
8	157			183	
9	158	-			
10	159	USCAP, A Call for Action	250	279	
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
		FLORIDA PUBLIC SERVICE COMMISS	ION		
	11				

1	PROCEEDINGS
2	(Transcript follows in sequence from
3	Volume 2.)
4	CHAIRMAN EDGAR: We will go back on the
5	record. Thank you all. And when we went on our belated
6	lunch break, we had a few more speakers who had signed
7	up. And so, Ms. Brubaker, I'll ask you to go back to
8	our list.
9	MS. BRUBAKER: Certainly. Next to speak is
10	Janice Blair.
11	Thereupon,
12	JANICE BLAIR
13	was called as a public witness, and having been duly
14	sworn, testified as follows:
15	DIRECT STATEMENT
16	MS. BLAIR: My name is Janice Blair.
17	J-a-n-i-c-e, B-l-a-i-r. My address is 3383 Harrison
18	Blue Road, Perry, Florida, 32348, as well as 354
19	Northwest Sumpter Avenue in Lafayette County, Mayo,
20	Florida. I'm attending school.
21	What I would like to talk to you about today
22	and I would like to say thank you for allowing me,
23	and I would like to say I'm not nearly as nervous since
24	it wasn't as hard last time, and I would like to thank
25	you for that. What I want to talk to you about is
	FLORIDA PUBLIC SERVICE COMMISSION

1 degrees of separation. I'm from Taylor County, but it 2 is not an independent nation. Neither is Glades County. 3 I also would like to speak to you about the 4 future, my future. My future is a 15-year-old 5 granddaughter who lives in Clay County, Florida. And 6 today as I was sitting and listening to the testimony, I 7 thought, isn't this interesting. St. Lucie County, Fort 8 Pierce may be affected by the Glades County coal plant. 9 Well, my granddaughter's grandfather lives there. Her 10 step-grandmother lives there. Her Uncle Josh lives 11 there. Her Aunt Mabel's family lives there. So there's 12 not very many degrees of separation. 13 Also, too, someone spoke about Palatka and a 14 coal plant. My father was L. D. Blair. His brother is 15 R. J. Blair, and his family lives in Palatka. My five 16 brothers, my four sisters, my 43 nephews and nieces, my 17 37 great-nephews and nieces -- and recently they told me, "Aunt Janice, you need to recount us" -- all live in 18 Taylor County. They tell me I have been called an 19 20 environmental activist, and I beg to differ with that,

because I see myself as a family advocate. I see myself as coming here today in the hopes of protecting and giving voice about the health, welfare, and well-being of my family.

25

21

22

23

24

But I also want to talk to you about our

FLORIDA PUBLIC SERVICE COMMISSION

1 money, because we are, as I said before, your silent 2 consumer. I understand that Glades County has a lot of poverty. We've heard that this morning. And I'm sure 3 that, just like our county of Taylor, that when we have 4 5 a large rate of poverty, we rely on our state systems and our federal government. We rely on food stamps to 6 feed our families that can't afford food. We rely on 7 Medicaids and Medicares to purchase health insurance for 8 9 our families, and that's our collective taxes. And anytime whenever we risk the health of our families and 10 11 cause our families more sickness, you increase my taxes 12 if they are a recipient of Medicare or Medicaid. I'm 13 sorry.

14 Also, too, there's another misconception. I 15 took a hot shower this morning. I watched television. 16 I made coffee. But I also too have conservation energy 17 bulbs, and I know that I have to take paint thinner to 18 the dump site and put it in a special container. I 19 separate my plastic from my aluminum cans, and I 20 separate my household garbage. I do this every week. I'm a little bit inconvenienced, but I'm a tough 21 Floridian. I can do that. 22

Next I would like to talk to you about the difference in cheap and free. This is cheap (indicating). I see a lot of Dasani bottles on the

FLORIDA PUBLIC SERVICE COMMISSION

1 tables. That's the more expensive brand. This is the 2 cheap brand. But the stuff I have in here right now is free, because I got it out of your water fountain. Now, 3 is it free? No. Somebody purchased this water. I just 4 5 got it free. So when we talk about things like 6 26 million gallons of water a day and I go down to the 7 store and pay 79 cents for this pint, which there are eight in a gallon, which makes it \$6.32 a gallon, twice 8 9 as expensive as any gasoline that I purchased on the way 10 over here, can we really -- is that a really good deal, 11 to give away water when it can be sold?

A suggestion that I have is sell 2 million gallons of the water, write the people of Glades County a revenue check like the people in Alaska get the revenues off their oil, and then they will have cash revenues without having to work.

The businesses, the investors, the industry did not enter Glades County with this proposition because it was to help the poor people of Glades County. They're there to make a profit and to sell it as an economic boon. I think maybe we should investigate that a little more.

In 1954, the good citizens of Taylor County were offered a pulp and paper mill, and it has operated for 50 years to economically develop us. We still have

FLORIDA PUBLIC SERVICE COMMISSION

1 a poverty rate of 18.5. The pollution effects are, as I have said in this meeting before, is that our number one 2 3 discharge diagnosis at Doctors Memorial Hospital for the 4 past three years running is COPD and lung cancer. 5 Another point that I -- so maybe possibly the economic boon isn't all that it's made out to be. 6 7 I also heard someone say today, and this was 8 quite interesting to me, that southern California had rolling blackouts. I think that was pre-Enron days. 9 10 But I want to assure you that I have survived a rolling 11 blackout. I am here. It did not make me sick or kill 12 me. 13 On Christmas of 1984 or '5, and I'm not sure 14 exactly which year, but the weather was very brutal. It 15 was 18 degrees in Perry for three days, and we suffered 16 through a series of rolling blackouts. Thirty minutes 17 the electricity would be on, 30 minutes it would be off, 18 and my whole family survived. The dog didn't die. But we had to sacrifice not making coffee, not taking a 19 20 shower, staying in our long pajamas to manage this. 21 But I will tell you this. During the recent years and the hurricanes, I was without power in 22 23 Lafayette County for a day and a half during one storm.

24 25

FLORIDA PUBLIC SERVICE COMMISSION

daughter and her family in Clay County was without power

I was out power for three days in another storm.

165

My

1 for three days. Listening to the scientists who say 2 that greenhouse gases could cause more storms, I fear 3 that we would be without power more from the added 4 storms than just from the electricity deficit. 5 So I know that we want to be -- we want to 6 have our points heard. We want to get the message 7 across. But just as I use electricity -- let me make this analogy. It seems that on one side someone is .8 9 saying, "Let's have all pepper. We need all pepper." 10 And on this side, someone is saying, "Let's have all 11 salt." I'm saying, "Let's have some salt, let's have 12 some pepper, and that might be better." 13 Thank you very much for allowing me to speak. 14 I feel that as a Floridian, I live in a state community, 15 and I am very proud to be here today to tell you this. 16 CHAIRMAN EDGAR: A question from Commissioner 17 Carter. 18 COMMISSIONER CARTER: I've got to at least say 19 hello to you. It's good to see you again. You're one 20 of the few people that can say Lafayette County 21 properly. 22 Thank you for your input. Thank you very much 23 for coming. 24 MS. BLAIR: Thank you. 25 COMMISSIONER CARTER: And thank you for coming FLORIDA PUBLIC SERVICE COMMISSION

1 to represent your neighbors. 2 MS. BLAIR: Thank you. CHAIRMAN EDGAR: Thank you, Ms. Blair. Do 3 they teach Lafayette in South Georgia? 4 5 COMMISSIONER CARTER: Right across the border. 6 CHAIRMAN EDGAR: Ms. Brubaker. 7 MS. BRUBAKER: The next speaker is Betty 8 Johnson. Thereupon, 9 BETTY JOHNSON 10 was called as a public witness, and having been duly 11 sworn, testified as follows: 12 DIRECT STATEMENT 13 14 MS. JOHNSON: Hello once again. Good to be 15 with y'all. For the record, I'm Betty Johnson. I live at Madison, Florida. My address is 3309 Northeast 16 17 Geranium Street. And I've been a lifelong resident of Madison County, and I'm familiar with north central 18 19 Florida. We fight every day to keep economic 20 development out of there and keep it rural. We won an 21 award, I want you to know, in 1995, and we are proud to 22 this day to say we have a rural community award from the 23 State. We met a lot of interesting people along the 24 25 way since we last testified here before you over the

1 Taylor Energy Center project, and we met people from 2 Glades County and all over, and we've decided we're just 3 going to stick together and see this thing through, hopefully to the bitter end, for the better for of all. 4 5 So we're grateful to each of you to have the opportunity 6 to speak to you one on one, to share our thoughts and 7 our concerns with you, and hope that we'll find a better way to end our dilemma for the future energy needs in 8 9 Florida.

I am thrilled to also see Governor Charlie Crist taking a sincere interest with matters that come before you every day. He is genuinely looking for renewable energy for Florida, as well as the Office of Energy with DEP. We'll get there. And I don't think it's going to be as long as it has been. We'll find the solutions that we all need and can live with.

17 But personally, coal-fired power plant new 18 development is something I strongly oppose, because I don't think that's in the future for Florida, and I 19 20 don't think that's the total need for what the citizens 21 of the State of Florida need. So I oppose the Glades 22 County case today, as I opposed the Taylor Energy Center 23 for Taylor County, because it's a coal-fired power 24 plant.

25

Recently I discovered -- because I am a

1 customer of Progress Energy Florida, I took an interest 2 in seeing exactly how much of a huge area that they 3 cover to provide electricity, and I was amazed at how 4 big it really was. And it goes down quite a long ways 5 in the state and takes up most of the state. But I found that there were 15 fossil-fueled power plants 6 owned by Progress Energy and one nuclear power plant 7 that serve the entire area for their customers. 8

I'm also deeply interested in just mentioning 9 10 again to you the public interest that needs to be upheld 11 in these kind of proceedings. I don't really know what public investment the citizens of the State of Florida 12 make on behalf of all state owned and leased facilities 13 with regards to Florida Power & Light utility, but I ask 14 you to please consider the needs of the citizens with 15 regards to that public investment. 16

And for the future, I strongly would recommend 17 solar power is what we really need to focus in on, 18 because it's time that the State, as it has grown to 19 this capacity, we need to be providing our own utility. 20 We need one that's a renewable energy, and we need one 21 that will reduce the future energy needs and the cost to 22 the citizens of the State of Florida. I think we can 23 accomplish that in our planning stages when we develop 24 25 the future energy for this particular need.

FLORIDA PUBLIC SERVICE COMMISSION

1 I don't know what else to add today. I would 2 like to say thank you. I am grateful to the Office of 3 Public Counsel for intervening in this particular case. 4 I asked that you be in the last one for the Taylor 5 Energy Center, so I'm grateful that you are a party to 6 this case and that you represent the citizens and the 7 State of Florida. So we look forward to looking -- you know, to work with you in the future on any particular 8 9 matters that come. I'm thrilled and excited that the 10 State sees we do have an interest there, and for a long, 11 long time it has been overlooked in proceedings like this. But we made it, didn't we? 12 13 And we are so grateful to you guys. You are 14 so courteous and respectful. And most of all to you, 15 Commissioner Carter, we sincerely appreciate your 16 interest in the citizens. We just wanted you to know 17 that. So I'm going to hush -- it has been a long 18 19 day -- and tell you we hope that you do not permit 20 another coal-fired power plant for Glades County as well 21 as Taylor County. I think we can find an alternative 22 that we can use for the future, and it will help, you 23 know, Florida overall. That's the goal, is protecting 24 what we have. And we'll find that way. We're working 25 on it.

FLORIDA PUBLIC SERVICE COMMISSION

1 So are there any questions or concerns that I 2 can address at this time from each of you? 3 CHAIRMAN EDGAR: Commissioner Carter. COMMISSIONER CARTER: I know what "hush" 4 5 means. I just wanted to say hey and thank you. Keep on 6 fighting the good fight. 7 MS. JOHNSON: We're there for you and 8 everybody. 9 COMMISSIONER CARTER: And our Chairman and Commissioner McMurrian and I, we sincerely appreciate 10 11 having the public come and express your opinions, and 12 that weighs heavily in our minds. 13 MS. JOHNSON: Believe you me, you're a great 14 bunch of people to work with. You really are. 15 COMMISSIONER CARTER: Thank you for coming. 16 MS. JOHNSON: Thank y'all. 17 CHAIRMAN EDGAR: Thank you, Ms. Johnson. Ms. 18 Brubaker. 19 MS. BRUBAKER: The last person I currently 20 have signed up to speak is Ron Saff. 21 CHAIRMAN EDGAR: Mr. Saff? Is Mr. Saff with 22 us this afternoon? 23 MS. BRUBAKER: I don't believe he's actually 24 present here. And so with that, that is the last person 25 we currently have signed up to speak.

CHAIRMAN EDGAR: Okay. Is there anybody that is with us here this afternoon who would like to address the Commission during the public testimony portion of this proceeding that has not yet had the opportunity to do so?

1

2

3

4

5

16

Seeing none, okay. Ms. Brubaker, anything 6 7 else we need to take up before we move from this phase here shortly into the next? My suggestion would be -- I 8 9 had candidly underestimated perhaps the amount of time 10 that we would spend on this when we first sat down this morning. I had thought we would take a break and allow 11 12 the opportunity to look over the documents that have been submitted, but I'm thinking that it might make more 13 sense to take those up first thing in the morning if 14 15 that is agreeable to the parties.

Okay. Other matters, Ms. Brubaker?

MS. BRUBAKER: With that, there's nothing with regard to the public testimony portion of the hearing. Unless you care to take a brief break, we can move on to the technical portion. There are a few preliminary matters there.

CHAIRMAN EDGAR: Okay. Let me look to the parties. Again, I had thought we would take a break, but we've just recently had a break. So is everybody ready to move forward?

FLORIDA PUBLIC SERVICE COMMISSION

You are ready? I'm hearing no noes.
 Okay. Ms. Brubaker, preliminary matters for
 the technical portion.

MS. BRUBAKER: I would like to note for the record that we do have some witnesses who have been excused from the hearing. They are FPL witnesses Sanchez, Coto, Yupp, and Damon. I understand there may be some further discussion regarding witnesses. Are you prepared to address, or is there going to be some further discussion needed?

MR. LITCHFIELD: Madam Chairman, there has been some discussion with respect to potential further elimination of witnesses in this case and then potentially consolidation of direct and rebuttal presentations, but I've not heard back from Mr. Gross, so we would -- at least FPL is not in a position to comment at this time.

18 CHAIRMAN EDGAR: Okay. Mr. Gross, any 19 comment? And I'm not trying to put you on the spot. We 20 will be back here tomorrow morning, so we can --

21 MR. GROSS: Well, Mr. Litchfield and I did 22 talk about the possibility of witnesses Plunkett and 23 Schlissel being stipulated, but I'm not in a position to 24 agree to that yet. But we did discuss it. Plunkett and 25 Schlissel would -- and I brought this up before.

FLORIDA PUBLIC SERVICE COMMISSION

Apparently, the weather -- my latest report is the weather has cleared enough that they will be able to fly in. But they will be in tomorrow, and it's quite conceivable that I would request that they be taken out of order.

1

2

3

4

5

6 And there was some reference -- I did bring 7 this up at the prehearing conference. However, I didn't anticipate us being in this stage of the proceeding. 8 9 But my request still remains the same. And I discussed that with Mr. Litchfield, whether that would be a 10 11 problem for him, because I think Mr. Schlissel would 12 like to testify earlier in the day, in the morning, and 13 Mr. Plunkett in the afternoon.

14 CHAIRMAN EDGAR: Okay. Well, then what I 15 would ask is, similarly, as I mentioned this morning, 16 and for those of you who have practiced here before us 17 before, I generally do try to accommodate scheduling 18 requests, however, obviously, not wanting to put any 19 other witness or party in a more difficult position, who 20 also have other, I'm sure, scheduling demands, 21 et cetera, to make.

So what I would ask is, we will go for a while here for the rest of the afternoon, and when we do break for the day, I would ask that all of the parties get together, and we can talk in the morning about what is

FLORIDA PUBLIC SERVICE COMMISSION

the best way to proceed.

2 And we will also be looking at, so people can 3 be thinking, and we'll be asking our staff to work with each of you on potential days maybe next week if we need 4 5 to extend. So keep that in mind as well, and we'll see 6 what we can do to move forward thoroughly, but yet 7 efficiently. 8 Okay. Other preliminary matters? 9 MS. BRUBAKER: There is just one or two 10 others. Perhaps the next one to take up I expect to be 11 a fairly simple, straightforward one. The Sierra Club 12 and other intervenors -- just for clarity's sake, when I 13 say Sierra Club, that's going to be abbreviation for all 14 the parties whom Mr. Gross represents -- has requested 15 official recognition of a case. It's the Massachusetts 16 vs. EPA case. The cite for that is 127 S. Ct. 1438. It's the one that just recently issued. Barring 17 18 objection from the parties, staff recommends that 19 official recognition be granted. 20 CHAIRMAN EDGAR: Mr. Gross, additional 21 comment? MR. GROSS: I have really nothing to add. 22 Ι 23 think it's a case that's very relevant, and I intend to 24 refer to it in my opening statement and perhaps question 25 a witness on it.

1 CHAIRMAN EDGAR: Okay. So the request before 2 us is to take official recognition of this recent 3 Supreme Court case. Any objection? MR. LITCHFIELD: No. 4 5 CHAIRMAN EDGAR: Okay. Seeing none, then for 6 this proceeding, this Commission will take official 7 recognition of the court case that Ms. Brubaker read to 8 us. 9 MS. BRUBAKER: With regard to the stipulated 10 list that was provided at the beginning of the hearing, 11 I do note that there's a number of prefiled exhibits. 12 My suggestion is we take those in turn as those witnesses are called forward to speak. As you 13 14 referenced earlier, Chairman, we have a number of 15 exhibits that were provided during the public testimony 16 portion, and we will address those in the morning. 17 Exhibit 1 is staff's -- excuse me. Exhibit 2 18 is staff's composite exhibit. It has been stipulated to 19 by the parties. For administrative ease, we have those 20 available on CD. It's my understanding that the hard 21 copy of the document has not been particularly useful at 22 the hearing, but we can certainly also provide a copy of 23 that if anybody is in need of it. It would be my 24 suggestion, since it has been identified, to go ahead 25 and move that into the record at this time.

FLORIDA PUBLIC SERVICE COMMISSION

1 CHAIRMAN EDGAR: Are there any questions, 2 concerns, requests for changes? Mr. Gross. 3 MR. GROSS: Madam Chair, thank you. May I ask Ms. Brubaker a question about the exhibit? Are you 4 5 including -- there was an exhibit that we objected to, 6 which was more of a compilation. 7 MS. BRUBAKER: Yes, that's correct. That is 8 not part of that exhibit. 9 MR. GROSS: That's not part of that. Then we 10 have no objection. No objection. 11 MS. BRUBAKER: And actually, that brings me to 12 my next preliminary matter. 13 CHAIRMAN EDGAR: Okay. Well, first, let's go 14 ahead and take this up. So the comprehensive exhibit 15 list will be entered into the record. 16 (Exhibit 2 marked for identification and 17 admitted into the record.) 18 CHAIRMAN EDGAR: Does that get us there? 19 MS. BRUBAKER: Yes. As Mr. Gross alluded, 20 staff also sought to have the parties stipulate to an 21 additional exhibit. What we're passing out now both to 22 the Commissioners and the parties is what we're calling 23 staff's second composite exhibit. That's the one with 24 the yellow sheet. And the source documents to staff's 25 second composite exhibit, that's the one with the blue

FLORIDA PUBLIC SERVICE COMMISSION

sheet.

1

2	Basically, the parties were unable to
3	stipulate to the staff's second composite exhibit. What
4	it basically is comprised of are excerpts from
5	interrogatory responses, excerpts of data from witness
6	exhibits. It also includes a page from Ten-Year Site
7	Plans for Progress and TECO. And staff is happy to not
8	press the issue as far as having this stipulated to or
9	entered into the record. However, we do intend to make
10	use of this exhibit during cross-examination for a
11	number of witnesses.
12	The reason we've compiled it this way,
13	frankly, is one of administrative ease and expedition.
14	The underlying information is essentially in the record
15	through the composite exhibit, the one that was just
16	stipulated to and entered into the record. To the
17	extent information in here is not already entered into
18	the record through Exhibit 2, we would certainly take
19	that into account when the cross-examination questions
20	come up.
21	The source documents, the one with the blue
22	sheet, is basically the complete interrogatory response
23	and what have you just so the parties can use that for
24	reference if they want to see the complete interrogatory
25	response rather than perhaps the excerpt. It is

FLORIDA PUBLIC SERVICE COMMISSION

available.

2	Staff is not seeking to move either of these
3	documents into the record. Again, we're simply using
4	these in the process of cross-examination and to help
5	move things along quickly, so we just wanted to go ahead
6	and identify both of these exhibits. My request would
7	be to mark the yellow sheet as Exhibit
8	CHAIRMAN EDGAR: How about 155?
9	MS. BRUBAKER: 155?
10	CHAIRMAN EDGAR: We'll go ahead and mark and
11	label staff's second composite exhibit, number it 155.
12	And that is, as Ms. Brubaker said, the document with the
13	yellow cover sheet. And then, Ms. Brubaker, you want to
14	go ahead and
15	MS. BRUBAKER: And Exhibit 156 were the source
16	documents, would be my other request.
17	CHAIRMAN EDGAR: Mr. Gross, we will mark and
18	label for now and then see where that takes us as we
19	move through the testimony. Does that work for you?
20	MR. GROSS: Yes. I think our objection was
21	primarily to the admission of this compilation, this
22	composite exhibit that was more of a compilation. And
23	based on what I've heard, that it will not necessarily
24	be admitted into evidence, but just used for cross, and
25	we don't object to that. And we certainly have no

objection to the interrogatories and the underlying 1 source data. So if my understanding is correct, then we 2 3 would have no objection. MS. BRUBAKER: That's correct. 4 CHAIRMAN EDGAR: Okay. I think we're all on 5 6 the same page, so to speak. 7 (Exhibits 155 and 156 marked for identification.) 8 9 CHAIRMAN EDGAR: Okay. Ms. Brubaker. 10 MS. BRUBAKER: There may be just a few more 11 matters, but I'll leave FPL to decide when they would 12 like to take it up. I know there's the issue of the FPL newspaper notice and affidavit, and they can either take 13 it up as a preliminary matter if they wish, or if they 14 15 wish to address it through the first witness, they're welcome to do so. And there's also the issue of the 16 errata sheet for the testimony. So at your discretion. 17 CHAIRMAN EDGAR: Mr. Litchfield, other 18 19 matters? 20 MR. LITCHFIELD: Thank you. We're at least 21 prepared to take up today, this afternoon before we get 22 started as a preliminary matter having the Commission 23 mark and potentially move into evidence FPL's notice of 24 filing certified proof of publication in various 25 newspapers. This is a filing that was made April 13th

FLORIDA PUBLIC SERVICE COMMISSION

1 in this docket. We filed the relevant newspaper -- we 2 submitted the relevant newspaper notices around the 3 state, and we filed certification of that fact in this docket, so we would ask that it be marked as 157. 4 5 CHAIRMAN EDGAR: And you have copies? MR. LITCHFIELD: And we have copies. 6 7 CHAIRMAN EDGAR: Let's go ahead and distribute 8 copies. So, Mr. Litchfield, as you've requested, the 9 certificate of newspaper notification will be so labeled 10 and marked as Exhibit 157. Thank you. 11 (Exhibit 157 marked for identification.) 12 MR. LITCHFIELD: And, Madam Chairman, I think 13 we can go ahead and take care of the errata sheets as 14 well at this time. I think that would be 15 administratively efficient. So if those could be --16 CHAIRMAN EDGAR: 158? 17 MR. LITCHFIELD: -- marked 158. Thank you. (Exhibit 158 marked for identification.) 18 19 MR. LITCHFIELD: And the errata sheets were 20 also filed February 13th. And just for sake of clarity, 21 we filed errata sheets for Jose Coto prefiled direct, William Damon prefiled direct, David Hicks prefiled 22 23 direct, Steve Jenkins prefiled direct, Ken Kosky 24 prefiled rebuttal, Armando Olivera prefiled direct, 25 Judah Rose prefiled rebuttal, Rene Silva prefiled

FLORIDA PUBLIC SERVICE COMMISSION

1 direct, and also for rebuttal, Steve Sim prefiled 2 direct, and then an errata sheet with respect to the 3 prefiled need study in Appendix G. And we would ask that 157 and 158 be moved into the record. 4 5 CHAIRMAN EDGAR: Okay. I'm confused as to my dates, so maybe you can clarify for me, Mr. Litchfield. 6 7 I think you said filed February 13th. Did you mean April 13th? 8 9 MR. LITCHFIELD: Did I say February 13? I apologize. April 13. 10 11 CHAIRMAN EDGAR: Well, that's what I heard. 12 MR. LITCHFIELD: Well, in any event, it is 13 April 13th, although I noticed that actually the year is 14 wrong. CHAIRMAN EDGAR: And that was the second thing 15 16 that threw me there. And I'm assuming that this should 17 actually be 2007 on the cover letter. 18 MR. LITCHFIELD: Indeed, yes. 19 CHAIRMAN EDGAR: And actually, it is correct 20 on the second page. So we will note for the record that 21 we are marking the errata sheets that have been 22 distributed to all of the parties and staff and the 23 Commissioners and that there is a typo on the front 24 page. It was filed on April 13th, 2007. And that is 25 being marked as Exhibit Number 158, and if there is no

FLORIDA PUBLIC SERVICE COMMISSION

objection to Exhibits 157 and 158 as so described, then 1 2 we will go ahead and enter those into the record. And 3 that helps me for clarity. (Exhibits 157 and 158 admitted into the 4 5 record.) 6 CHAIRMAN EDGAR: Okay. Other matters? 7 MS. BRUBAKER: Chairman Chair, in the spirit 8 of making sure all errors are clarified, I would like to 9 point out, and will point out again when it does come up in cross-examination, the yellow sheet, hearing Exhibit 10 11 155, if you will turn to Bates stamp page number 3, 12 there's a chart there, Comparison of FPL's Generation 13 Alternatives. If you look in the third column, 2012 Gas 14 CC, the first number under cost is 750. That should be 15 734. And my apologies for the error. 16 CHAIRMAN EDGAR: Okay. So noted for the 17 record. And again, I will look to you to raise that to 18 us again if we get to a point where we are referencing 19 this document for testimony and questioning. 20 MS. BRUBAKER: Thank you. 21 CHAIRMAN EDGAR: Okay. Other matters. 22 MR. GROSS: Madam Chair. 23 MR. LITCHFIELD: Mr. Gross. 24 MR. GROSS: Thank you. During Mr. Schlissel's 25 deposition that was taken by Mr. Litchfield, I believe,

FLORIDA PUBLIC SERVICE COMMISSION

1 there were some errors in that deposition that were 2 pointed out by Mr. Litchfield. And since I can't be in 3 two places at one time, I've got at my office a corrected version of Mr. Schlissel's supplemental 4 5 testimony. And in the interest of fairness, I will go back to my office, and we will do a formal notice of 6 7 filing, but that might not be possible until later in 8 the day tomorrow. But I will offer to send a copy of 9 the corrected testimony informally when I get back to my 10 office this evening. 11 MR. LITCHFIELD: Will you be able to send it via e-mail? 12 13 MR. GROSS: Yes, I will. And I understand 14 that he made the changes in bold to make it easier to 15 tell what the corrections were. 16 MR. LITCHFIELD: May I ask a clarifying 17 question, though? 18 CHAIRMAN EDGAR: Yes. 19 MR. LITCHFIELD: Are we talking about an 20 errata -- are we talking about changes to the depo or to 21 the testimony? 22 MR. GROSS: These are -- I think they were 23 errors, mathematical errors, errors of that nature. 24 CHAIRMAN EDGAR: I'm sorry. In the deposition 25 or in the prefiled testimony?

1 MR. GROSS: Oh, I'm sorry. This is in the 2 deposition. No, excuse me, in his supplemental testimony, supplemental direct testimony. 3 MR. LITCHFIELD: Okay. So you will be 4 5 submitting an errata sheet indicating line and page and 6 corrections as opposed to a new piece of testimony? I 7 guess that's really what I'm asking. 8 MS. BRUBAKER: If I might, Chairman. 9 CHAIRMAN EDGAR: Ms. Brubaker. 10 MS. BRUBAKER: In order to be consistent with 11 how FPL has corrected its witnesses' testimony, and since I'm sure we have all highlighted and marked up our 12 13 various copies of the testimony, I think it would 14 probably be easier, unless we're talking about 15 substantial revisions, to have a type-and-strike, 16 line-by-line reference of what the changes are, if 17 that's possible. 18 MR. GROSS: I had requested that, and that's 19 not what was furnished to me. I will look into it. But 20 I understand. I think that would be ideal and 21 preferable, but what I've got is just something with the 22 changes in bold. 23 CHAIRMAN EDGAR: Okay. Then I think what I 24 would ask is that -- again, Mr. Gross, I would say thank 25 you for bringing it up early so we know where we are as

FLORIDA PUBLIC SERVICE COMMISSION

1 we get started with this next phase, but we will all strive for both simplicity and clarity, and if that's 2 3 something that you can see where you're at this evening 4 and in the morning, and then we can see the best way to 5 proceed. MR. GROSS: I've just been informed that I 6 7 think we can do a type-and-strike for you if that would be better. 8 9 MR. LITCHFIELD: That would be far preferable, 10 I think for the reasons stated by Ms. Brubaker, and the 11 format would be consistent with, I think, our Exhibit 158, if that's acceptable. 12 13 MR. GROSS: Okay. 14 CHAIRMAN EDGAR: Okay. Thank you, Mr. Gross. 15 MR. GROSS: Thank you. 16 CHAIRMAN EDGAR: Okay. Any other matters? 17 Yes, sir. 18 MR. KRASOWSKI: Madam Chair, with all due 19 respect to the counsel and the attendees, is there any 20 possibility that we could submit a request that the 21 court case of Ohio Environmental Coalition, Plaintiffs, 22 opposing the U.S. Army Corps of Engineers in West 23 Virginia that addresses the ability for West Virginia 24 governmental jurisdictions to prohibit mountain top 25 mining? I think we might be a little out of line as far

FLORIDA PUBLIC SERVICE COMMISSION

1 as being untimely with this, but we would like to at least make the request that this be entered into -- that 2 would allow us to refer to it when we cross-examine 3 witnesses. 4 5 CHAIRMAN EDGAR: So a request for official 6 recognition of this court case, and you would be able to 7 provide the name and the cite, and I will look to 8 Ms. Brubaker. 9 MS. BRUBAKER: Well, I would note, I believe 10 the OAP requires that any request for official 11 recognition take place three days prior to the hearing 12 and that notice be forwarded to the parties. However, 13 if no party objects to the request for official 14 recognition, staff has no objection. 15 CHAIRMAN EDGAR: Mr. Litchfield. 16 MR. LITCHFIELD: Thank you. FPL, in 17 recognition that Mr. Krasowski is not a typical 18 participant in our proceedings, we're willing to extend 19 some degree of courtesy here. But I would ask that we 20 be permitted to get a copy of the case and look at it 21 tonight and then respond tomorrow if that's acceptable. 22 CHAIRMAN EDGAR: Can you provide that 23 information? 24 MR. KRASOWSKI: Yes. We'll have to have it 25 printed out. Will he accept an e-mail with the material

1 in it, or shall we go -- we can get a copy of it made if 2 that's preferred. 3 CHAIRMAN EDGAR: Let me put it this way. Ι 4 think that between the resources of our staff, FPL, and 5 the material that you have, we can probably find a way 6 to work together to do that. So I would ask you to get 7 with our staff and Mr. Litchfield when we conclude for 8 today, and we'll see if we can accommodate that. 9 MR. KRASOWSKI: Thank you very much. 10 CHAIRMAN EDGAR: Thank you. 11 Ms. Brubaker, any other matters? 12 MS. BRUBAKER: I'm not aware of any at this 13 time. 14 CHAIRMAN EDGAR: Okay. It is quarter to 4:00. 15 I think that the next thing that we have to do is 16 opening statements. We have five parties, and the 17 Prehearing Order allows 10 minutes per party. I am ready to move forward if you all are, or does anybody 18 19 need to take a couple of minutes before we do that? Is 20 everybody ready? 21 Okay. Then Mr. Litchfield, you're recognized. 22 MR. LITCHFIELD: Thank you. Madam Chairman, 23 Commissioners Carter and McMurrian, we do thank you for 24 the opportunity to provide opening comments here today 25 regarding this very, very important resource decision in

FLORIDA PUBLIC SERVICE COMMISSION

which FPL is recommending your approval of a 1 state-of-the-art, advanced technology, high efficiency 2 3 coal plant. Over the new few minutes, I hope to 4 highlight some of the key points and considerations that 5 you will hear through testimony over the next two or 6 three days and to summarize why FPL believes you should 7 approve its request for a determination of need in this 8 case.

9 You will hear this proposed plant referred to 10 as the FPL Glades Power Park, or more simply FGPP. You 11 will also hear FPL's choice of technology referred to as 12 ultra-supercritical pulverized coal or, alternatively, 13 USCPC.

14 It's important to emphasize that FPL based its 15 technology choice on extensive analyses of many other 16 options. FPL's witnesses will demonstrate that USCPC is 17 the most efficient application of pulverized coal in the 18 world today. It is a proven technology in commercial 19 operation, has extremely high reliability factors, and 20 burns extremely clean, particularly with the state-of-the-art environmental controls that are being 21 22 included in its design. In fact, I would emphasize that 23 this plant materially outperforms all other existing or proposed coal-to-electricity plants on the combination 24 25 of efficiency and emissions. And it is significant that

FLORIDA PUBLIC SERVICE COMMISSION

even with the addition of FGPP, FPL will remain one of the cleanest utilities in the entire country. And you will not hear, we submit, Commissioners, any credible evidence to the contrary on these points.

1

2

3

4

5 As you well know, Florida continues to be a state that experiences one of the highest population 6 growth rates in the country. In FPL's service territory 7 alone, the need for new generating capacity has grown 8 and is projected to continue to grow by about 600 9 megawatts a year. That's roughly the equivalent of a 10 new power plant every year. Now, there's no dispute 11 about that in the record either. 12

And this annual additional demand on FPL's 13 system is -- and this is important -- after taking into 14 consideration the major reductions in demand resulting 15 from FPL's industry leading conservation efforts. FPL 16 is ranked number one nationally by the U.S. Department 17 of Energy in this respect. Including DSM to date and 18 19 additional DSM being pursued, FPL will have avoided approximately 5,800 megawatts of generating capacity by 20 21 2015, or roughly three plants the size of FGPP. There 22 is no dispute regarding these facts.

But despite these industry leading accomplishments, the record will show that there simply is not enough cost-effective DSM available to eliminate

FLORIDA PUBLIC SERVICE COMMISSION

or defer the need for all base load capacity additions. And despite FPL's support for renewables, they also are not the answer to the need for a base load generating unit.

1

2

3

4

5 As you know, FPL Group as a whole boasts the cleanest generating fleet in the entire country, has the 6 largest portfolio of renewables, and is the largest 7 producer of energy from wind and solar in the country. 8 But as Mr. Silva will testify, we would need to install 9 8,000 wind turbines to replace just the energy, not even 10 11 the capacity, just the energy produced by FGPP. Now, 12 8,000 turbines, to give you a visual image, would ring 13 the entire State of Florida, its entire coast line, and 14 we still wouldn't have enough coast line to 15 accommodation all of those turbines.

And renewables systems such as wind that are intermittent in nature cannot be used to provide the much-needed capacity. This means that when Florida turns on its lights and its computers and its security systems and its file servers, the power has to be there. That's capacity. The testimony will show that FPL does need to add base load capacity.

Now, of course, we have to consider the type of resource addition that we're going to add, particularly in an era of expanding energy demands and

FLORIDA PUBLIC SERVICE COMMISSION

tightening natural gas supplies. And this really is at 1 2 the heart of FPL's recommendation in this case, the need 3 to maintain fuel diversity. In 2006, the Florida 4 Legislature, as you know, also recognized that fuel 5 diversity was a critical need in Florida. They amended 6 the Florida Power Plant Siting Act to require utilities 7 and this Commission to explicitly take fuel diversity 8 into consideration as a criterion of approval in cases 9 such as these, and certainly this Commission has 10 acknowledged the importance of fuel diversity. FPL's 11 witnesses will testify that in the absence of FGPP, FPL 12 will rely upon natural gas for more than 70 percent of its customers' electricity by 2016. 13

14 Now, to obtain fuel diversity is not always 15 easy. At times it requires a utility to propose and a 16 regulator to approve a fuel choice that is not popular 17 on every front. Nuclear generation is a good example, 18 and coal is another example. But there really is no 19 such thing as a fuel choice that does not have any 20 detractors, or for that matter, a fuel choice that 21 doesn't have some drawbacks. Natural gas itself has 2.2 drawbacks, as we well know. We've experienced large 23 price increases and market volatility over the last few 24 years.

25

That really leaves gas and coal as the only

realistic mid-term options, and that is the choice that must be made in this proceeding, and that is the heart of the case, whether FPL in the practical circumstances today should add only natural gas generation at this time. There should be no doubt, Commissioners, that a decision not to pursue FGPP or even to pursue a portion of FGPP is a decision to increase our commitment to natural gas.

1

2

3

4

5

6

7

8

9 Now, adding coal at this time, a fuel that has 10 many advantages in terms of supply and price, will 11 mitigate the drawbacks of natural gas that I've 12 discussed, drawbacks that become much more pronounced, 13 of course, the greater proportion that natural gas 14 comprises of a utility's fuel mix.

Now, if, on the other hand, natural gas markets surprise us all and they soften and prices go down, FPL customers will still benefit because of its relatively large natural gas-fired mix in its portfolio, and that, of course, is the benefit of diversity and the advantage of diversity. That is in fact the point of diversification.

You are likely to hear a great deal in this case about the prospect of CO<sub>2</sub> regulation. But the important thing that you will hear from FPL and its witnesses is that this fact should not change our point

FLORIDA PUBLIC SERVICE COMMISSION

of view. In fact, in many respects, it underscores the 1 2 need for diversity. As FPL's witnesses indicate, one of 3 the few things that we can confidently predict at this time regarding carbon regulation is that a high cost 4 carbon regime will drive up the price of natural gas. 5 Now, FGPP will offer customers very attractive 6 7 life cycle economics under many fuel and compliance cost scenarios, and those scenarios are discussed by our 8 9 witnesses. Of course, it isn't going to be true under 10 every single possible scenario, and I think that's our 11 point. Ultimately, a decision to add FGPP should not be predicated on any particular economically modeled or 12 expected outcome. 13 It is because of the inescapable uncertainties 14 that it is critical that FPL and its customers maintain 15 16 a level of fuel diversity afforded by the addition of 17 FGPP. Without it, our customers will be much more 18 vulnerable to the uncertainties of gas curtailments, 19 whatever the cause, and to the price pressure and 20 volatility that is projected to be a continuing 21 characteristic of natural gas markets, especially in the 22 event of  $CO_2$  regulation.

You will hear throughout this proceeding and probably hear in opening comments that there are things we don't know yet that should cause this Commission to

FLORIDA PUBLIC SERVICE COMMISSION

reject or to delay construction of FGPP, reminding us that a delay is tantamount to rejection. Yes, there are some things we don't know, but there is no planning process that has complete certainty. But the interesting thing about this case is that FPL is recommending FGPP not just on what we know, but because of what we don't know.

1

2

3

4

5

6

7

8 Here are some things that we know that will 9 come out during the course of this hearing. We know 10 that energy costs are rising. We know the world demand 11 for energy is increasing, not decreasing. We know that 12 fossil fuels are not increasing. We know that relative 13 to natural gas, the domestic reserves of coal are 14 immense. We know that all projections are that coal 15 prices will remain below the price of natural gas. We know that with the addition of this state-of-the-art 16 coal unit, FPL's reliance on natural gas -- excuse me, 17 18 without the addition of this unit, FPL's reliance on 19 natural gas will increase to over 70 percent by the year 20 2016. We know that CO<sub>2</sub> regulation will increase the cost of energy, including natural gas. 21

We know that USCPC is a proven state-of-the-art technology, that IGCC, in contrast, is still in an emergent phase of development. We know that USCPC is 15 percent more fuel efficient than IGCC and at

FLORIDA PUBLIC SERVICE COMMISSION

least 5 percent more fuel efficient than any proposed 1 future IGCC plants. We know that USCPC is commercially 2 available in the right scale. We know that IGCC is not. 3 We know that USCPC is less expensive to build than IGCC. 4 5 We know that high reliability translates into lower 6 operating and electric costs and lower emissions, and we 7 know that USCPC is more reliable than any current 8 operating IGCC unit.

9 We know that as Florida continues to grow, we 10 will need more, not fewer, base load units. We know 11 that as Florida continues to grow, it will become more 12 difficult, not easier, to site base load generating 13 units.

And finally, we know that adding coal to our system will diversify our system, which by definition will improve the reliability and reduce fuel price volatility.

So based on everything that we know, FGPP is the right decision at this time, Commissioners, and the witnesses will support that recommendation.

Now, what do we not know? We don't know when CO<sub>2</sub> regulation will be imposed. We don't know what form CO<sub>2</sub> regulation will take. For example, we don't know what kind of allowances or offsets might be granted. We don't know whether the regime that is imposed will

FLORIDA PUBLIC SERVICE COMMISSION

1 penalize or reward an already clean system such as 2 FPL's. Therefore, we don't really know how much CO<sub>2</sub> 3 regulation will impact FPL's system or the plant, FGPP. We don't know by how much CO<sub>2</sub> regulation will increase 4 5 the cost of natural gas. By the same token, we don't know by how much  $CO_2$  regulation will decrease the cost 6 7 of coal as a fuel. We know much more than we don't know. But even because of the things we don't know, 8 9 FGPP is the right plant to build at this time to 10 maintain fuel diversity.

Commissioners, as FPL's witnesses will 11 12 explain, we have a well-conceived project before you. 13 We have implemented well-designed contracting strategies 14 to obtain market pricing and to mitigate the cost 15 uncertainties. We are employing state-of-the-art 16 technology and design and the very best in environmental 17 controls. We have a good site. We have support from 18 local government and the community. And we have a sound 19 fuel procurement strategy that will maintain needed fuel 20 diversity for the benefit of customers.

In short, we have all the elements of a good project that should be approved. We believe it is the right solution for meeting our customers' needs. We think you will find the evidence persuasive, but that, of course, is your decision.

FLORIDA PUBLIC SERVICE COMMISSION

	19
-	No were listen to the testimony Commissioners
1	As you listen to the testimony, Commissioners,
2	there should be no doubt in your mind that the only
3	practical alternative to FGPP is additional natural
4	gas-fired generation. That is feasible, but we do not
5	believe it is desirable. And we submit this to your
6	consideration, Commissioners, and thank you for your
7	time.
8	CHAIRMAN EDGAR: Thank you, Mr. Litchfield.
9	Mr. Beck.
10	MR. BECK: Thank you, Madam Chairman. Good
11	afternoon, Commissioners.
12	Madam Chairman, this morning when you gave
13	introductory remarks, you went through the various items
14	that are contained in section 403.519 of Florida
15	Statutes that the Commission considers in a certificate
16	of need case. One of those criteria is whether the
17	proposal plants are the most cost-effective alternative.
18	To determine whether these plants are cost-effective, we
19	believe you have to look at the likelihood of carbon
20	taxes during the expected 40-year lives of these plants.
21	The prospect of carbon taxes during the lives of the
22	proposed coal plants is a virtual certainty.
23	Mr. Litchfield mentioned that there are many
24	uncertainties right now that face the Commission as you
25	make the decision on the certificate of need. And the

FLORIDA PUBLIC SERVICE COMMISSION

1 precise level of taxes and the form that they'll take is 2 unknown, but we do know one thing, that whatever form 3 and level that the carbon taxes take, it will be a cost 4 that has an impact on the proposed plants, and it's a 5 cost that will be charged to customers through higher 6 electric rates. This makes it extremely important for 7 the Commission to make its best judgment about the level 8 of carbon taxes that will come into place in the coming 9 decades.

10 You're going to hear testimony from two 11 experts who will be providing you their analysis about 12 the level of carbon taxes which they expect in the 13 future. On cross-examination, I'll be asking 14 Mr. Schlissel, who is a witness for the Sierra Club, to 15 explain his forecast of carbon taxes, and I'll be asking Mr. Rose, who is a witness for Florida Power & Light, to 16 17 do the same thing. I'll also be asking Mr. Rose about 18 an analysis he calls the expected case for air 19 regulation, which includes an expected trajectory or 20 carbon prices over the coming decades. Part of that 21 discussion will include some information which he claims 22 is confidential, and I'll be using an exhibit with that that will show the basis for his trajectory. 23

Carbon taxes are coming, and in order to make the right decision on the plants, we urge you to make

24

25

FLORIDA PUBLIC SERVICE COMMISSION

the best judgment you can about the level of carbon taxes in the future that will affect the cost of these plants. Thank you.

CHAIRMAN EDGAR: Thank you. Mr. Gross.
MR. GROSS: Thank you, Madam Chair,
Commissioners.

1

2

3

7 I'm not going to take this opportunity to 8 respond point by point to Florida Power & Light's 9 opening statement, except to say that we vigorously 10 dispute many of the factual assertions that were 11 contained in that opening statement, and I think that the consideration of the evidence, the testimony of the 12 witnesses and the exhibits, will be the determining 13 14 factor, not simply the opening statements and the claims contained therein. 15

Upon consideration of the amounts and costs of 16 additional cost-effective demand-side management 17 18 resources that FPL could be expected to acquire if it intensified, expanded, and accelerated its planned 19 energy efficiency portfolio, intervenors, Sierra Club, 20 NRDC, et al., find that increased DSM could defer the 21 22 need for the two units that are currently proposed in this proceeding. Further, these additional efficiency 23 savings would cost significantly less than the levelized 24 life cycle cost of the units. In fact, such ambitious 25

FLORIDA PUBLIC SERVICE COMMISSION

DSM would displace the need for the capacity of the Glades units beyond the planning horizon through the year 2030. We will have an expert witness who will testify to these conclusions.

1

2

3

4

Using recent experience of Massachusetts 5 utilities enables scaling up of FPL's residential and 6 7 nonresidential efficiency savings roughly by half. Using recent actual and planned expenditures and savings 8 by Pacific Gas & Electric in the State of California to 9 project annual budgets and electric savings, electricity 10 11 savings, if FPL replicated its performance with and a 12 commitment to acquiring all cost-effective DSM, would have more than tripled the peak demand reduction FPL 13 plans to realize over the long term from its DSM 14 15 portfolio as it presently exists. And it is through 16 this type of end-user efficiency measures that DSM could 17 defer the need for these two proposed FPL Glades units 18 and cost significantly less than the cost of the units.

19 This has already been done. Probably the 20 leader in the country at this time is the State of 21 California, and they have imposed very stringent 22 end-user efficiency regulations that have already been 23 implemented. And Mr. Plunkett's testimony is based on 24 the actual experience of Pacific Gas & Electric, which 25 is a utility comparable to FP&L, and then he has tried

FLORIDA PUBLIC SERVICE COMMISSION

to transpose that by applying that data to the specific case of FPL's proposal in Florida.

1

2

3

4

5

6

7

8

9

10

11

And end-user efficiency is something that we all heard about earlier this morning. And the City of Tallahassee is doing it, and that is more efficient homes, refrigerators, dishwashers, air conditioning and heating units. And it actually costs less money to invest in end-user efficiency and defer the need for the plants completely than it does to build these plants. And there's no problem with any emissions. There are no emissions issues.

12 This needs to be done, as explained by 13 Mr. Plunkett, in combination with alternative fuel 14 sources, which by themselves might not be sufficient to defer the need for the FPL units. But in combination 15 16 with these end-user efficiency measures, the use of 17 alternative fuel sources can defer the need for these 18 plants, and this will buy time to develop new technology 19 and new sources of energy. That is the front line 20 position of the intervenors, Sierra Club, NRDC, and the 21 other environmental organizations that we represent.

We have a couple of other expert witnesses who will make two additional primary points. One has to do with the likelihood and the economic impact of CO<sub>2</sub> regulation. Individual states, regional groups of

FLORIDA PUBLIC SERVICE COMMISSION

states, shareholders, and corporations are making 1 serious efforts and taking significant steps toward 2 3 reducing greenhouse gas emissions in the United States. Efforts to pass federal legislation addressing carbon 4 5 have gained ground in recent years. These developments, combined with the growing scientific understanding of 6 7 and evidence of climate change, mean that establishing federal policy requiring greenhouse gas emission 8 reduction is just a matter of time. 9

Significantly, on April 2, 2007, the United 10 11 States Supreme Court issued an opinion in the case of 12 Massachusetts vs. the Environmental Protection Agency. 13 And there are three very key findings that the Court made in addition to many others, but for our purposes, 14 the Court found that there is global warming caused by 15 greenhouse gases, including  $CO_2$ .  $CO_2$  is a pollutant 16 under federal law. The Environmental Protection Agency, 17 which took the position that it did not have authority 18 19 to regulate greenhouse gases, including  $CO_2$ , was 20 overruled by the U.S. Supreme Court, which found that 21 the EPA does indeed have authority to regulate 22 greenhouse gases and  $CO_2$ , which makes it inevitable and 23 also accelerates the process we can expect for ultimate regulation of greenhouse gases and CO2. Whether our 24 25 administration and our presidential administration

FLORIDA PUBLIC SERVICE COMMISSION

decides to take action or not, the EPA has virtually been mandated by the United States Supreme Court to regulate greenhouse gases.

1

2

3

Moreover, FPL has signed on to numerous 4 5 agreements endorsing the need to address climate change and advocate federal mandatory legislation of greenhouse 6 7 Indeed, FPL on March 30th released a white paper qases. pushing for a more stringent way to make the United 8 States reduce greenhouse gas emissions, for a price to 9 be placed directly on carbon. So I think FPL is to be 10 applauded for taking these actions, but this lends more 11 12 support to the probability that there will be regulation 13 of greenhouse gases, when groups are getting together with members like Florida Power & Light Company to make 14 15 it happen.

Intervenors have provided an estimate of the 16 17 likely cost arising from future greenhouse gas restrictions and reductions and provided in FPL's 18 19 specific context for those costs, as well as to critique 20 FPL's resource planning in general. Intervenors have 21 found that FPL has substantially understated future 22 carbon costs in its economic analysis and failed to 23 demonstrate that FGPP is the least cost, least risk  $2^{\cdot}4$ addition to its system. FPL's analysis in support of 25 FGPP -- analyses in support of FGPP do not

FLORIDA PUBLIC SERVICE COMMISSION

comprehensively consider potential cO<sub>2</sub> prices and do not evaluate the full range of technically feasible

alternatives. Accordingly, intervenors on this ground as well recommend that the Commission deny FPL's need request.

1

2

3

4

5

6 Although the intervenors, Sierra Club, NRDC, 7 et al., contend that there is no need for and oppose the 8 construction of any type of coal plant by FPL, an IGCC 9 plant in Florida can provide electricity at a lower cost 10 than the proposed ultra-supercritical pulverized coal 11 plant. Many utilities around the country are choosing 12 IGCC plants due to IGCC's much lower emission of all 13 pollutants and its capability to capture CO<sub>2</sub>. There are 14 coal gasification plants in the United States, as our testimony will show, that are already using carbon 15 16 capture and sequestration equipment. There's a lot of 17 misinformation out on IGCC plants, and it is our 18 intention through our testimony to clear a lot of this 19 misinformation up.

Various studies show that IGCC plants can capture CO<sub>2</sub> at much lower costs than pulverized coal plants. The additional value of an IGCC plant is its ability to use various fuels, including coal, petroleum coke, natural gas, biomass, and waste materials. This will enable IGCC plants to respond to future changes in

FLORIDA PUBLIC SERVICE COMMISSION

fuel costs and changes in environmental regulations and provide significant cost savings during the life of the IGCC plants.

As stated above, energy efficiency measures can eliminate the need for a new coal plant in FPL's system. But if the Commission's decision comes down to a choice between the pulverized coal plant proposed by FPL and an IGCC plant, intervenors unequivocally support an IGCC plant for the reasons stated above.

However, and in conclusion, even an IGCC plant should not be built until there is technology in place, nor should any coal plant be built until there's technology in place for carbon capture and sequestration. And for these reasons, the intervenors, Sierra Club, NRDC, et al., request that this petition for determination of need be denied.

17

18

19

20

21

22

1

2

3

4

5

6

7

8

9

Thank you very much.

CHAIRMAN EDGAR: Thank you. Ms. Perdue.

MS. PERDUE: Thank you, Madam Chair and Commissioners. On behalf of Associated Industries of Florida, we appreciate the opportunity that you've given us to intervene in this case.

Earlier today you heard from Mr. Bishop, the president and CEO of Associated Industries, and I will try not to duplicate the information that he provided to

FLORIDA PUBLIC SERVICE COMMISSION

you, but to briefly remind you, AIF represents Florida's business community. We've considered ourselves the voice of Florida's business community before appointed and elected officials since 1920. We support FPL's petition for determination of need for the Glades unit, and we believe that the petition should be approved.

1

2

3

4

5

6

7 Talking first about your requirement under 8 Florida law to evaluate the electricity needs of 9 Florida's residents and businesses, it's very clear to 10 everyone -- it has been stated earlier here in public 11 testimony, and there are numerous other statistics and 12 data available to show that our state is growing 13 exponentially. Our economy is one of the best of all 14 the states in the country. Our unemployment rates are low. We are an attractive state for business. 15 But 16 because of that growth, there's a greater demand to 17 accommodate the growth, especially the demand for 18 electricity.

AIF's members and the business community require adequate and reasonably priced electricity in order to conduct our business in this state and for our growth and success to continue. We believe that the Glades units are needed to meet the growing energy needs that our current growth rates demand, and we also believe that the testimony and the evidence before you

FLORIDA PUBLIC SERVICE COMMISSION

1 throughout the rest of this hearing will show that FPL 2 has put forth a project that is well thought out and is 3 well planned and is the best available plant that can be 4 built right now to meet the needs right now. We've 5 certainly heard today that in the future, regulations 6 may change or technology may change or something may be 7 different, but the reality is, the growth for this state 8 is here now, and the demands and the needs for Florida's 9 businesses and residents are here now, and we believe 10 the proposal before you is the best solution for the 11 needs of the state now.

12 You're also required to look at the state's 13 needs for fuel diversity and supply reliability, and we 14 believe that it's critical to diversify the fuel sources 15 from which electricity is generated in this state. As 16 Mr. Bishop said earlier, we support other types of 17 projects in addition to what we are supporting with 18 FP&L. But again, we believe you should approve the proposed Glades power plant in order to create a stable 19 20 investment climate so that electric utilities like FPL 21 can build more fuel diverse generation to meet our state's needs. 22

We also believe that approval of the Glades unit will mitigate the risks of supply disruption associated with natural gas-fired generation. It will

FLORIDA PUBLIC SERVICE COMMISSION

1 also help mitigate the electric price volatility that's 2 associated with reliance on natural gas-fired 3 generation. We believe that the addition of this clean 4 coal electric generation technology that this plant will 5 provide will augment and balance FPL's natural gas-fired 6 generation with much-needed solid fuel generation. 7 We appreciate again the opportunity to participate in this hearing and urge you to approve the 8 9 petition. 10 CHAIRMAN EDGAR: Thank you. Mr. Krasowski. 11 MR. KRASOWSKI: Good afternoon once again, Madam Chair and Commissioners. It's a pleasure to be 12 13 here in front of you today to be able to participate in 14 our civilization, our culture, our country's processes 15 that affect us. It's certainly unique to our culture that we're here as ratepayers sitting here doing this. 16 17 I prepared my statement in writing so that I don't drift as much as I usually do, so pardon me if I'm 18 not making the eye contact. And then when I'm done 19 reading this, there will be a few points I would like to 20 21 make. 22 My name is Bob Krasowski, and I'll be 23 addressing the concerns that Jan and I have regarding 24 the Glades Power Park from our perspective as 25 ratepayers.

FLORIDA PUBLIC SERVICE COMMISSION

The need for energy in the future is undeniable. How we determine what that need is and how we provide for it while satisfying the requirements of systems integrity, reliability, conservation, cost-effectiveness, as well as diversity, are what we are here to discuss and what you, the Commissioners, along with others, will ultimately decide.

8 The good people of FP&L have proposed to build 9 a 1,960-megawatt coal-fired power plant at the site of Lake Okeechobee at the headwaters of the Everglades in 10 11 south central Florida. And as part of their effort, 12 they have expressed a desire to provide the best proven 13 power generation options as they now see them. It is 14 our contention that there is more information and data 15 to be considered and processed before the PSC and others 16 can make a prudent and reasonable determination to 17 approve FPL's petition.

At this point, I would like to acknowledge the good works of FP&L, and especially the good works of this Commission. We understand that efforts have been made in the past and continue in regard -- in the present in an effort to establish effective energy policies for the residents of Florida. It is these efforts that we would like to build on.

25

1

2

3

4

5

6

7

There are notable court cases which have been

FLORIDA PUBLIC SERVICE COMMISSION

decided since the testimony submitted in this case has been presented, namely, the Supreme Court ruling that the EPA can regulate CO<sub>2</sub> and the federal ruling in federal court, the ruling in federal court in West Virginia that local municipalities or governments can prohibit mountaintop removal of coal. And, of course, we'll discuss this with the witnesses as far as the effect this might have on the economics of coal. Different demand-side management and efficiency strategies such as the Florida Solar Energy Center's zero energy building program have not been mentioned in the testimony on either side, nor has the

1

2

3

4

5

6

7

8

9

10

11

12

13 solar hot water heater program where the utility 14 provides hot water heaters to its customers under 15 contract, which is going on now in Lakeland, Florida, 16 which is a very impressive blend of using the utility to 17 provide the service, still allowing the utility to be 18 the utility that provides the power to heat your water. I don't know if -- we'll be asking the people with the 19 20 testimony if they're familiar with this program and ask 21 them to elaborate on it, and hopefully they'll engage us 22 in conversation about it.

There are many alternative visions regarding energy policy, but we would like at this time to suggest that the analysis of efficiency strategies, economic

FLORIDA PUBLIC SERVICE COMMISSION

incentives to power companies and people, and 1 2 technologies under consideration by the Florida 3 Legislature, the Commission created by the Legislature, namely, the Century Commission, who has identified 4 5 climate change as the number one concern facing Florida 6 in its long-term planning, and the Energy Commission, 7 which is charged with developing a Florida energy plan. 8 Now, the Energy Commission has only had two 9 meetings, and they've broken into subcommittees, and the 10 Subcommittee on Efficiency and Conservation hasn't even 11 met yet. They'll be meeting later this month. And 12 there's a full assortment of ideas and programs and 13 policies that are being suggested to them, and we expect a lot to come out of that. 14 15 And I did see the chair at their initial 16 meeting, so I know there's quite a network of interest 17 within the state government, and people are watching 18 this and participating at the highest levels, and the 19 effort specifically identified by the Honorable Governor 20 Charlie Crist in his State of the State address that he 21 wants to, after this legislative session, bring the best 22 minds together to study the Florida energy situation. 23 So I suppose he means he's going to be adding more to 24 the best minds that are already focused on this.

These state-sponsored actions represent solid

FLORIDA PUBLIC SERVICE COMMISSION

25

actions and activities that will in fact change the baseline of information and data that has been identified to this point as the basis for the needs assessment used to advocate for or promote this project.

5 As ratepayers, we don't want to participate in the economic risk and environomic negative behavior that 6 7 we believe this plant and other coal-burning technology 8 represents. We understand and respect the positions 9 represented by the residents of Glades County, and that's all the people of Glades County. I've been in a 10 11 lot of places, and I've been out to Glades County, and 12 they're very, very nice people. I don't think you'll 13 find better people anywhere, and that's both sides. You've heard from them, and they're just nice people. 14

15 And I believe that economic needs of the 16 people of Glades County, even after this project, if it 17 doesn't move forward, which we hope it doesn't, even 18 after this project does not move forward, that the economic considerations of Glades County be remembered, 19 20 and that maybe FP&L could place a training center out 21 there for their linemen, and hopefully the people that 22 will be maintaining the solar collectors that they put 23 on everybody's home, but not just drop Glades County. 24 They do seem to have a need.

25

1

2

3

4

So based on the aforementioned issues, we

FLORIDA PUBLIC SERVICE COMMISSION

respectfully request that the needs determination for this project be put in abeyance. Or as some say, delay is denial. If that's what it takes, just deny this, this proposal. But we suggest it could be put in abeyance for at least two and a half years until a thorough and a correct analysis of the need is established.

1

2

3

4

5

6

7

And I go back to the fact that all these --8 the Legislature, these commissions, these committees, 9 and the Governor are all going to be looking at this, 10 and we're sure that a lot will come out of that. So why 11 12 jump the gun on doing such a large project that expands 13 into the future by 40 years when, if we could hold up 14 for a couple of years, we're pretty confident that 15 alternatives will play out? And through the course of the testimony that will be presented and the witnesses 16 17 being up here, we'll try to develop an understanding that there is more to be known, so it will support our 18 position that we should hold off, because I think 19 20 there's few things worse than jumping the gun on something as big as this and as important at this. 21

22 So for the moment, I'll say one thing finally 23 to wrap up. President John Kennedy started a program to 24 put a man on the moon before the decade was out. It 25 took him like eight years to do it. That's coming

FLORIDA PUBLIC SERVICE COMMISSION

1 around again. There's a sense in the country that 2 people really want to see some good things happen. So 3 let's seize the opportunity to draw everyone in together 4 and really hear this thing out, and maybe Governor 5 Charlie Crist or someone will be able to give us a 6 challenge similar to that. The technology is out there. 7 The opportunity is out there. We just have to kind of 8 break down some barriers and get everybody working on 9 the same page. I think it could be a exciting time in store for us. 10 11 Thank you very much. I appreciate your 12 listening to my comments. 13 CHAIRMAN EDGAR: Thank you, Mr. Krasowski. 14 Okay. That concludes the opening statements. I think what I would like to do is take just about five 1516 minutes while we switch gears a little bit and then --17 and I do mean five minutes. So we'll take a very short 18 break, and then when we come back, Mr. Litchfield, we'll 19 start with your witness. And I would ask all of the 20 parties for all of your witnesses, if you would remind 21 them of the five minutes in the Prehearing Order for 22 their prepared statements. 23 So we are on a short break. 24 (Short recess.) 25 CHAIRMAN EDGAR: Okay. We will go back on the

FLORIDA PUBLIC SERVICE COMMISSION

record. Mr. Litchfield, your first witness. 1 MR. LITCHFIELD: Thank you, Madam Chairman. 2 FPL's first witness is Mr. Armando Olivera. And I'm 3 wondering if you intend to swear --4 CHAIRMAN EDGAR: We will need to go ahead and 5 swear you in. If you would, Mr. Olivera, stand with me 6 and raise your right hand. 7 Thereupon, 8 ARMANDO J. OLIVERA 9 was called as a witness on behalf of Florida Power & 10 Light Company, and having been duly sworn, testified as 11 follows: 12 DIRECT EXAMINATION 13 BY MR. LITCHFIELD: 14 Mr. Olivera, would you please state your name 15 Q. and business address for the record. 16 Armando Olivera, 700 Universe Drive, Juno 17 Α. Beach, Florida, 33408. 18 And by whom are you employed and in what 19 Q. 20 capacity? I'm president of Florida Power & Light. 21 Α. 22 Have you prepared and caused to be filed 28 Q. pages of prefiled direct testimony in this proceeding? 23 I have. 24 Α. 25 And did you also cause to be filed errata to Q. FLORIDA PUBLIC SERVICE COMMISSION

your testimony on April 13, 2007? 1 I have. 2 Α. 3 Do you have any further changes or revisions Q. 4 to your prefiled direct testimony other than reflected on the errata sheet that you've mentioned? 5 No, I do not. 6 Α. 7 With those changes, if I were to ask you the Q. same questions contained in your prefiled direct 8 9 testimony today, would your answers be the same? 10 Yes, it would. Α. 11 MR. LITCHFIELD: Madam Chair, I would ask that 12 Mr. Olivera's prefiled direct testimony be inserted into 13 the record as though read. 14 CHAIRMAN EDGAR: The prefiled testimony will 15 be inserted into the record as though read. 16 BY MR. LITCHFIELD: 17 Mr. Olivera, are you sponsoring any exhibits Q. 18 to your direct testimony? 19 Α. Only one exhibit, which is my bio. 20 MR. LITCHFIELD: And that is identified as 21 document AJO-1, which I would indicate, Madam Chair, has 22 already been premarked for identification as Number 3. 23 2.4 2.5 FLORIDA PUBLIC SERVICE COMMISSION

1		<b>BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION</b>
2		FLORIDA POWER & LIGHT COMPANY
3		DIRECT TESTIMONY OF ARMANDO J. OLIVERA
4		DOCKET NO. 07EI
5		JANUARY 29, 2007
6		
7	Q.	Please state your name and business address.
8	A.	My name is Armando J. Olivera. My business address is Florida Power & Light
9		Company, 700 Universe Boulevard, Juno Beach, Florida 33408.
10	Q.	By whom are you employed and what is your position?
11	Α.	I am employed by Florida Power & Light Company (FPL or the Company) as
12		President.
13	Q.	Please describe your duties and responsibilities in that position.
14	A.	I have overall responsibility for the operations of the Company.
15	Q.	Please describe your educational background and professional experience.
16	A.	I have a Bachelor of Science degree in electrical engineering from Cornell
17		University and a Master of Business Administration from the University of
18		Miami. I am also a graduate of the Professional Management Development
19		program of the Harvard Business School. I was named President of FPL in 2003.
20		My professional background is described in more detail in Document No. AJO-1.
21	Q.	Are you sponsoring an exhibit in this case?
22	A.	Yes. I am sponsoring an exhibit consisting of one document, AJO-1, which is
23		attached to my direct testimony.

1

1

#### Q. What is the purpose of your testimony?

2 FPL is requesting Commission approval to construct two solid fuel coal-fired Α. generating units each having summer net capacities of approximately 980 MWs 3 for a combined net capacity of 1.960 MWs. If approved, FPL Glades Power Park 4 ("FGPP") will provide the best, most cost-effective alternative for maintaining 5 fuel diversity within FPL's generation portfolio, providing greater system 6 reliability, mitigating the effect of volatility in natural gas prices, and taking a 7 positive step toward achieving greater U.S. energy independence from reliance on 8 middle east fuel sources. FGPP will be constructed on a 4,900-acre site located in 9 unincorporated Glades County. The site is located west of Lake Okeechobee, 10 approximately four miles northeast of the town of Moore Haven in an 11 unincorporated area of Glades County. 12

13

My testimony provides an overview of FPL's request, describing some of the 14 significant challenges we face in meeting the growing demand for electricity in 15 the state of Florida, addressing the need for system fuel diversity, discussing the 16 economic uncertainties associated with this project compared to projects in 17 previous need determination proceedings, and explaining how such uncertainties 18 and other unique circumstances should affect the selection of the best resource 19 option and the Commission's approach to this proceeding. Also in light of these 20 issues, and the magnitude of the financial commitment this project will require of 21 22 FPL and its customers, I summarize some of the specific findings and 23 determinations that FPL is asking the Commission to make in connection with the

determination of need, prior to FPL undertaking the project. Such determinations
 include the institution of an annual review of the projected and actual costs to
 enable the Commission annually to determine the prudence of actual costs and the
 feasibility of continuing the project.

Have any governmental policy makers in the state recognized the need to

5 6 Q.

### encourage fuel diversity?

- 7 A. Yes. Various actions have been taken recently at the state government level to
  8 endorse and encourage the development of a more diverse mix of fuel sources and
  9 technologies to be used in Florida's energy future.
- Florida's Energy Plan, issued on January 17, 2006, addresses the importance
   of fuel diversity and avoiding a reliance on any one fuel type such as natural
   gas.
- The Florida Legislature recently highlighted the importance of fuel diversity Senate
   in House-Bill 888, which was signed into law on June 18, 2006. While this
   Commission has always taken fuel diversity into account in approving new
   generation in the state of Florida, the bill amended Section 403.519, Florida
   Statutes, and now requires this Commission to explicitly consider "the need
   for fuel diversity and supply reliability" when making its determination of
   need for new electricity generating capacity.
- This Commission on August 29, 2006 moved to speed FPL's fuel diversity efforts when it granted the company an exemption from a process that allows parties to bid to provide the additional power we need. In its news release that day explaining its decision, this Commission specifically cited FPL's efforts

221

2

1

to construct a coal-fired power plant, stating that "a diversified fuel portfolio insulates ratepayers from high-cost fuels and enhances long-term stability of Florida's economy."

### 4

5

3

# Q. Please describe the challenges FPL faces in planning for and constructing new generation in the state of Florida.

Florida, one of the most populated states in the nation, also continues to be one of 6 A. 7 the fastest growing. Over the past decade, FPL added an average of about 85,000 8 new customers each year. FPL is projecting an annual average increase of more 9 than 88,000 new customers for the next ten years. In addition, electric usage per FPL customer has increased by approximately 30 percent over the past 20 years. 10 11 As FPL witness Dr. Green explains in his testimony, FPL also projects continued 12 significant growth in energy usage per customer over the next decade. Despite administering one of the most successful energy conservation programs in the 13 14 country, and a focus on developing renewable energy, this growth in demand for electricity has necessitated and will continue to necessitate that, on average, FPL 15 16 build one large (i.e., 650 megawatt) power plant, or purchase an equivalent 17 amount every year, along with constructing the transmission and distribution infrastructure needed to deliver the power to customers. This effort requires a 18 19 massive commitment of financial and other resources. Indeed, to meet the 20 additional demand for electricity, FPL's capital expenditures are expected to 21 average about \$2 billion annually over the next four years.

1 Siting electric infrastructure also is a continuing challenge. Very early on in our 2 planning and siting process the Company makes considerable effort to listen to the concerns of members of the community regarding the location of electric 3 infrastructure. It is not uncommon for us to hear that people do not want power 4 plants, poles or lines near where they live, work or play. Overcoming these 5 challenges is very difficult, especially in such a high growth environment as 6 Florida, with development occurring throughout much of the state and with fewer 7 and fewer sites and corridors from which to serve that growth. 8

222

9

Similarly, many people continue to have concerns about the impact of power plant emissions, despite the fact that FPL has invested billions of dollars in clean sources of energy such as natural gas and in power plant emissions control equipment, and has emissions rates of  $CO_2$ ,  $NO_x$  and  $SO_2$  that are among the lowest in the electric utility industry.

15

Florida, of course, has no natural fossil fuel resources for the production of electricity, which further exacerbates the challenges described above, because it necessitates the development or expansion of fuel delivery systems into the state.

19

I know of no utility in the country that must plan for the rate and scale of growth
we have in Florida under such challenging circumstances.

- 22 Q. How have these factors affected FPL's fuel mix?
- A. As indicated in Mr. Silva's testimony, in 2005 FPL's fuel mix was as follows:

1	Natural gas (42%)
2	Nuclear (19%)
3	Coal (18%)
4	Fuel oil (17%)
5	Other sources (about 4%).
6	However, if only natural gas-fueled generation were added to FPL's system in the
7	future, by 2016 the proportion of natural gas-fired produced electricity would
8	increase to about 71% of total electricity delivered to FPL's customers, while the
9	contribution of coal would decrease to 7%.
10	
11	Nuclear power, a safe, emissions-free source of electric power with low operating
12	costs, has been an important part of our company's fuel mix, today accounting for
13	about one-fifth of the power FPL generates. Nuclear power, however, presents its
14	own set of challenges, as a result of which no new order for a nuclear power plant
15	in the United States ("U.S.") has been placed for almost 30 years, and no new
16	nuclear plant in the U.S. has received an operating license from the NRC in the
17	past 11 years.
18	
19	For many years now, natural gas has been the fuel of choice for both peak and
20	new base load power generation projects in the U.S. The fuel itself is clean and
21	has been readily available; the power generation technology is well understood,
22	proven reliable and thermodynamically efficient; and the typical combined cycle

plant has relatively short development and construction times, allowing for

1 flexibility in planning and the ability to meet changing demand forecasts. Thus, for many years, highly efficient natural gas-fired combined cycle plants have 2 dominated all others in economic comparisons. As Mr. Silva indicates, choosing 3 4 a new generation project from among such gas-fired units, at least in terms of 5 comparing self-build options, has largely come down to choosing which plant site 6 offers the best system-integrated economics, taking into account technical and 7 economic considerations such as transmission issues and line losses. FPL has 8 taken full advantage of these favorable characteristics and has added approximately 5,700 megawatts of clean, efficient natural gas-fired capacity in the 9 10 last seven years. With the completion of West County 1 and 2, approximately 11 64% of our fuel will be natural gas.

12

### Q. Please discuss the need for and advantage of fuel diversity.

- A. An investment in greater fuel diversity helps mitigate the effects of delivery
   disruptions or price spikes of any one fuel. The use of a more varied array of fuel
   sources thus enhances the reliability and reduces the cost volatility of electric
   power. FPL witnesses will testify that:
- If FPL were limited to adding natural gas-fired generation exclusively in the
   future, about 71% of the electricity delivered to FPL customers in 2016 would
   be generated using natural gas.
- The existing natural gas pipeline infrastructure into peninsular Florida is comprised of two pipelines from the Gulf Coast region. While this infrastructure has provided a high level of reliability over the years, the demands on both pipelines have continued to grow. In fact, by mid-2009,

these pipelines will be fully subscribed. Therefore, the addition of incremental natural gas-fired generation will require an expansion of one or both pipelines and/or a new interstate pipeline into Florida.

1

2

3

- Expansion of the existing pipelines to meet additional demand will not help
  reduce the vulnerability to production curtailments due to natural disasters
  such as hurricanes.
- 7 As more natural gas-fueled generation is added, the need to consider alternatives to maintain reliability will become imperative. These alternatives 8 could include the addition of a new interstate pipeline, additional underground 9 10 natural gas storage, on-site LNG storage facilities, and identifying alternate 11 supply sources, including access to new producing regions as well as the addition of LNG. Currently, LNG supply accounts for approximately 2.7% of 12 13 the total U.S. natural gas supply. By 2020, as demand for natural gas grows, it is projected that LNG will account for approximately 20% of the total U.S. 14 natural gas supply. However, it is important to note that to the extent LNG 15 16 supply imported from the oil producing regions of the middle east becomes a greater percentage of total U.S. natural gas supply in the future, the risks 17 associated with foreign supply fuel sources will become more prevalent. 18
- Though no one can predict price cycles of fuels, based on current fuel price
   forecasts the exclusive addition of natural gas-fueled generation in the future
   would likely result in more volatile and higher fuel costs over time.

Achieving a more balanced mix of fuel sources will mitigate the effect of a
 rise in the price of any single fuel on the cost of producing electricity, and thus
 help stabilize the price of electricity paid by FPL's customers.

226

Coal-based generation is a practical way to avoid such an overdependence on
natural gas in the future.

#### 6 Q. Why is FPL proposing to construct a coal plant at this time?

As I indicated earlier, FPL is proposing FGPP in the interest of fuel diversity and 7 A. the associated benefits for our customers. Until fairly recently, natural gas was a 8 relatively inexpensive fuel. Unfortunately, the relative price of natural gas has 9 increased significantly over the last several years, and the fundamentals of supply 10 and demand suggest that it is likely to increase further. On the demand side, some 11 of the very factors that have made natural gas attractive as a fuel – especially the 12 public's perception that gas provides a relatively clean emissions profile – are 13 likely to become more rather than less significant, while the supply side is 14 relatively constrained and does not appear likely to respond proportionately to the 15 increase in prices. Perhaps even more important, with fundamentally strong 16 demand and modest responsiveness of supply to prices, the future path of natural 17 18 gas prices is likely to be volatile, as it has been in the recent past.

19

FPL and its customers have already seen how significant the impact of price volatility can be. FPL purchases the fuel used to produce electricity and bills customers for the fuel directly at cost – with no profit added. FPL customers saw the latest spike in natural gas prices reflected in their bills beginning in January

1 2006. At that time, a residential 1,000 kWh bill increased by approximately \$17 2 or 18.5% over the 2005 bill, an increase of \$204 per year, primarily due to an 3 increase in fuel costs. Based on FPL's 2007 projected gas consumption as filed in 4 the Fuel Cost Recovery Docket No. 060001-EI, each one dollar per MMBtu 5 increase in the cost of natural gas translates to an increase in FPL's fuel costs of approximately \$430 million. Additionally, as recent hurricanes have shown, 6 7 natural gas supplies to Florida, which originate in the Gulf of Mexico region, are vulnerable to interruptions. It is quite clear that customers dislike volatility in 8 9 their bills and there is real value to them in reducing price volatility, just as there 10 is value to customers in enhancing service reliability. FGPP can play an important role in reducing FPL's and its customers' exposure to natural gas price 11 12 volatility and to potential interruptions in the availability of natural gas supply, 13 which might otherwise lead to temporary power curtailments. To address these 14 issues of natural gas price volatility and supply reliability, FPL is expanding its 15 pursuit of alternative fuel sources to generate power.

227

## 16 Q. Please elaborate on some of FPL's considerations in proposing to construct 17 FGPP.

A. While the capital costs of any solid-fuel plant such as FGPP are higher than those
for a natural gas-fired plant, the fuel costs are projected to be substantially lower.
Thus, upon its commercial operation FGPP will provide substantial fuel savings.
Significantly, as Dr. Sim and Mr. Silva indicate in their testimonies, under a
significant number of the fuel price scenarios considered in their analysis, FGPP
will prove to be the most cost-effective alternative on a long term basis.

However, the primary reason FPL is proposing to construct an advanced technology coal power plant is to establish a more diversified fuel portfolio that will, in turn, enhance the reliability of FPL's power supply and mitigate the price volatility of natural gas.

6 Coal, of course, is unique among fossil fuels in that the U.S. has an abundant 7 supply. For example, in his testimony Mr. Schwartz notes estimated domestic 8 coal reserves of approximately 230 years based on current demand. Coal, 9 therefore, is an important component of any plan to move to greater energy 10 independence from foreign sourced fossil-fuels, something that I believe most 11 people in this country would agree is imperative for our energy future.

12

1

2

3

4

5

13 As Mr. Silva explains, FPL has considered and will continue to consider other 14 options that could contribute to fuel diversity, including renewables such as solar 15 and wind technologies. However, nothing else, not even the significant amount of 16 demand side management in FPL's system, either individually or in the aggregate, 17 would provide the desired fuel diversity in sufficient amounts at the required time. 18 In an effort to stabilize prices and make use of an abundant, readily available fuel source, and after extensive analysis of all available options, FPL proposes to 19 20 maintain its fuel diversity by adding state-of-the-art advanced technology coal 21 generation to its portfolio of generating plants. As explained in more detail by 22 Mr. Hicks in his testimony, this power plant will produce steam at very high 23 temperatures and pressures which results in producing electricity with higher

efficiency and fewer emissions than previous generations of coal-fired power 1 This highly efficient generating technology will be complemented by 2 plants. installation of a comprehensive, state-of-the-art suite of environmental quality 3 4 control systems, as described by Mr. Hicks. 5 Q. You described some of the challenges in constructing a coal-fired power plant in the state of Florida. Have those challenges abated? 6 7 A. In some respects yes, and in others no. 8 Q. What conditions or factors have changed favorably for the construction of a coal-fired unit? 9 There are several major developments that have occurred or are now occurring 10 A. 11 that we considered in arriving at our decision to pursue this advanced technology coal plant. 12 13 14 The first is the emergence of a viable clean coal technology commercially available on the scale required that will enable FGPP to meet or exceed Florida's 15 16 stringent environmental regulations. 17 In addition to these major advances in technology that will be incorporated into

In addition to these major advances in technology that will be incorporated into our new power plant, the recent high market prices for natural gas, which FPL uses to generate a significant percentage of its electricity, and the potential that, going forward, natural gas prices may increase at a much higher rate than coal, makes coal particularly attractive for FPL in the future. Also of equal

importance, coal is an abundant and readily available fuel in America, thus making it a more secure source of fuel.

230

## 3 Q. What conditions or factors present particular challenges for the construction 4 of a coal-fired unit?

FGPP will help meet the need in Florida for reliable, cost-effective power in an 5 A. environmentally responsible way, and will serve as a strong economic engine in 6 7 an area of the state that would benefit from the plant's effect on the local 8 economy. FGPP has the support of most local governmental and economic 9 development agencies, as well as many community supporters who welcome the 10 opportunities the plant will provide. Even with all the good support the proposed 11 plant has received, we understand that other stakeholders may raise concerns 12 about the Company's plans and we realize that legal challenges are a potential 13 part of the process of developing a major project. But debate is healthy -- and as the process goes forward, FPL will continue to consider the views of those whose 14 views differ from ours. 15

16

1

2

In addition, as discussed in more detail by Mr. Yeager, significant uncertainties in
the market for labor and materials may affect the schedule of the Project and may
present construction challenges.

20

#### Q. Given these challenges, why pursue a coal plant?

A. As I have indicated, pursuing an advanced technology coal plant will provide
 customers with reduced fuel price volatility, enhanced system reliability and help
 provide more stable prices – and do so in a way that is consistent with FPL's long

history of respect for the environment. In addition, using a fuel that is so abundant domestically, in contrast to other fossil fuels, is consistent with the critical public policy initiatives in this country to achieve greater energy independence from foreign sourced fossil-fuels.

As presented by FPL witnesses, after extensive analysis of a wide range of market conditions, risk factors, technology and environmental issues and community concerns -- and the impacts of all of these on safely providing reliable electric service at a reasonable cost to meet growing demand -- we have concluded that adding coal generation to FPL's portfolio is the right choice for our customers as we plan today for tomorrow's needs.

12

1

2

3

4

5

We also believe that the proposal to construct FGPP is consistent with our strong 13 14 environmental record. Specifically, FPL will continue to be among the very 15 cleanest generating utilities in the nation and will continue to have the lowest CO<sub>2</sub> emissions rate of any major utility in the state of Florida. First, FGPP will 16 17 employ a series of state-of-the-art advanced pollution control technologies. 18 Second, the proposed project will be scrutinized by numerous state and federal 19 agencies to ensure that it meets all applicable environmental and other 20 requirements. Third, FGPP will be an extremely efficient power plant, meaning 21 it will burn less fuel to generate the same amount of electric energy relative to 22 other coal units in the state and, in fact, in the nation.

Q.

#### Why was an advanced technology coal plant selected?

232

2 Α. As I explained earlier, the need to diversify FPL's fuel sources necessitates the 3 addition of a power plant fueled by something other than natural gas. Wind and solar power, on the scale that is needed, are not viable options in Florida at this 4 5 time. Nuclear power, while re-emerging as a possible resource option to provide 6 base load generation in the future, also faces significant hurdles and, in any event, 7 successful completion of such a plant would be well beyond our needed time 8 frame. And, as stated by Dr. Sim, energy savings through demand side 9 management, although expected to remain sizable and even growing, will not be 10 enough to meet FPL's future additional power needs. This is despite the fact that, 11 between 2006 and 2015, FPL will add 637 MW of load management and 729 12 MW of conservation for a total of 1,366 MW of incremental demand side 13 management. This will avoid the need for another 1,639 MW of new generation capacity in those years. 14

15

Advanced technology coal is the right choice, and FGPP will be much different from traditional coal-fired plants in terms of efficiency and environmental impact. The type of coal that would be used at FGPP is abundant in the U.S. As Mr. Schwartz indicates, there is roughly a 230-year domestic supply unburdened by the geopolitical issues (e.g., energy dependence and terrorism) presented by oil imported from the Middle East -- issues that may also arise in the future with imported liquefied natural gas ("LNG"). In addition, as I mentioned, FGPP will

1 2 be much more efficient than conventional coal technology currently used in Florida and the rest of the U.S.

3

4 Further, each of the units will use proven air pollution control technologies to 5 maintain an emission level that will be among the lowest in the country for similar new facilities. Not only will these units minimize air emissions to the greatest 6 extent practicable, but we are designing the facilities with the aim that certain 7 8 emissions control technologies currently in development may, when proven, be 9 retrofitted into these units. Critics, on the other hand, will suggest that FGPP is the wrong solution because it does not immediately address the issue of carbon 10 11 dioxide emissions. As other FPL witnesses show, this notion is misguided. FGPP's technology and integrated gasification combined cycle (IGCC) would 12 both produce about the same amount of carbon dioxide emissions. Neither of 13 14 these technologies, nor other available solid fuel technologies, currently allows carbon dioxide emissions to be captured and sequestered on a cost-effective basis. 15 16 And, as Mr. Yupp and Mr. Silva explain, because natural gas is likely to remain 17 the marginal fuel for the foreseeable future, it is likely that a regulatory environment that factors carbon dioxide into the price of power will also put 18 19 additional upward pressure on natural gas prices, thus diluting any disadvantage 20 that a coal-fired project would otherwise have. In fact, Mr. Kosky notes that 21 depending on the type of emission, IGCC is actually worse.

1 I want to be clear that FPL and others in the industry recognize that there likely will be legislative action in the future aimed at reducing CO2 emissions. As 2 FPL's witnesses explain, we have taken that into account in our planning for 3 4 FGPP, actually modeling a range of possible outcomes. We expect that the 5 Commission, in determining whether to grant a determination of need for FGPP, certainly would accept the fact that such costs to some extent are likely to be 6 7 imposed on FGPP and other power plants in the future, although the precise amount is unknown at this time. This is one of the key uncertainties associated 8 9 with this project that I discuss below in reference to the specific request we are 10 making regarding prudence and future cost recovery, and is discussed at length by 11 Mr. Kosky and other FPL witnesses.

234

12

I would also note that FPL and its parent company FPL Group, Inc. (FPL Group) 13 14 have been recognized as environmental leaders in the utility industry. FPL Group 15 earned the #1 ranking in environmental performance for the fourth straight time 16 by Innovest, a Wall Street investment research company. As I stated earlier, our 17 emissions rates for NO<sub>x</sub>, SO<sub>2</sub> and CO<sub>2</sub> are among the lowest of our peer companies nationwide. The U.S. Department of Energy has ranked our energy 18 19 conservation efforts #1 among electric utilities nationwide. And our affiliate company, FPL Energy, is the world's largest renewable energy provider. It is the 20 largest generator of wind energy in the U.S. and the world, and also is the largest 21 22 producer of solar generation in the U.S.

1 So while some may question the effect on our clean energy reputation of bringing 2 on-line a coal-fired power plant, I would note that after the addition of FGPP an 3 advanced coal technology, FPL will continue to be among the very cleanest 4 generating utilities in the nation and will continue to have the lowest CO<sub>2</sub> 5 emissions rate of any major utility in the state of Florida.

235

# 6 Q. FPL has indicated its public support for various efforts to address climate 7 change and curb greenhouse gas emissions. Are these actions consistent with 8 FPL's proposal to construct FGPP?

9 A. Yes. FPL's central view on this matter is that it is time for this nation to move 10 forward with a mandatory, economy-wide, market based carbon dioxide reduction 11 program. Our industry and its investors need certainty on this matter in order to 12 plan accordingly. Once a national policy is in place, individual companies could 13 then make decisions on existing and new generation consistent with the program's 14 overall requirements. While FPL may not agree with every aspect of every bill, 15 proposal or white paper being discussed on this matter in the public domain, we 16 want to be a part of constructive efforts to further the dialogue and reach our goal. 17 Going forward, we fully expect that coal-fired generation will continue to be an 18 essential part our fuel mix, nationally and at FPL, as it will continue to be important for fuel diversity, reliability and price stability. At FPL, we have built 19 20 a portfolio of assets that includes low and non-emitting generation that places FPL 21 in a better position to face stricter environmental requirements. In fact, as Mr. 22 Ken Kosky states in his testimony, even with the addition of FGPP, FPL's 23 average rate of CO<sub>2</sub> emissions would be trending downward. The average rate of

1 2  $CO_2$  emissions per MWH for the period 2015 through 2020 is expected to be 17.4% lower than the previous period from 2000 through 2005.

3

#### Q. Did FPL consider other coal technologies?

4 A. As other FPL witnesses explain, FPL evaluated four coal technologies as part of 5 the selection process. The four technologies were sub-critical pulverized coal 6 (PC), integrated gasification combined cycle (IGCC), circulating fluidized bed 7 (CFB), and ultra-supercritical pulverized coal (USCPC) -- the technology 8 proposed for FGPP. A discussion of these technologies was provided in FPL's 9 Report on Clean Coal Generation, which was provided to the Commission on 10 March 10, 2005. To summarize that report, FPL carefully assessed each 11 technology according to a number of factors -- unit output, heat rate, availability, 12 capital cost and O&M costs. Based on a thorough analysis, FPL concluded that 13 USCPC is the best overall choice to provide the benefits of fuel diversity in the 14 2013 time frame. As discussed in the testimony of Dr. Sim and Mr. Hicks, these 15 results have been confirmed by subsequent studies.

16

This technology coupled with a complete suite of emissions control equipment, 17 18 and an innovative plant design, will allow the major byproducts of the combustion 19 and emissions control processes to be recycled into useful commercial products. 20 The bottom line is that the use of USCPC will provide our customers with the best 21 mix of capital and operating costs, high efficiency, high demonstrated reliability 22 and environmentally responsible conversion of coal to electricity from among the 23 available coal generation alternatives. Messrs. Yeager and Hicks will go into 24 further detail on these coal technologies, and Mr. Jenkins will specifically address

2

why IGCC would not be a viable solution at this time at the scale and efficiency that would be required to meet FPL's fuel diversity goals.

Q. Please summarize the economic uncertainties associated with the project and
how it affects the decision-making process in selecting the best alternative.

5 A. As Mr. Silva and others explain, there are three key areas of economic uncertainty 6 associated with FPL's analysis: (1) the future fuel price differential between 7 natural gas and coal; (2) costs of compliance with future environmental 8 requirements or unanticipated Site Certification conditions; and (3) the actual 9 capital cost and schedule of completing FGPP and placing it in commercial 10 operation.

11

First, we know the capital and operation and maintenance ("O&M") costs of 12 FGPP will be greater than those of a similarly-sized natural gas-fueled generating 13 plant. But, it is likely that a significant differential between natural gas and coal 14 prices will help to offset the capital and O&M cost differential - though it is 15 difficult to project far into the future what that fuel price differential may be 16 during the plant's 40-year life. However, even if actual natural gas prices in the 17 future are lower, our customers will still benefit because a significant portion of 18 FPL's generation will continue to utilize natural gas. 19

20

21 Second, FPL's economic analysis also indicates significant uncertainty from the 22 possibility of additional legislative or regulatory requirements, especially in the 23 area of emissions standards. Complying with these potential additional

requirements could involve supplementary control equipment, higher emission allowances costs, higher taxes, increased fuel expenditures, or a combination of some or all of these measures that may result in substantial added costs. These prospective requirements, which could be very large, would be part of the cost of electricity borne by FPL's customers. As I indicated earlier, although we expect

238

such requirements to be imposed in the future, the timing and amount is not known at this time. Similarly, unanticipated conditions that may be adopted as part of the Site Certification could impose additional capital or O&M costs on

FGPP.

9

1

2

3

4

5

6

7

8

10

The third major economic uncertainty results from the much longer lead time that 11 12 is required – about five to six years from the date of this need filing - for development, permitting and construction of the first FGPP unit and the potential 13 for delays during this process. Again, any delay in the process of obtaining a 14 final Site Certification for FGPP, or delays from any number of potential sources 15 such as vendors, suppliers, and contractors, will cause the plant's capital costs to 16 escalate. Any of these factors, which would be outside the control of FPL, could 17 18 cause the capital costs of FGPP to be higher than projected.

19

20 Despite these key economic uncertainties, I believe that FPL's proposal to 21 undertake the addition of FGPP at this time is the best, most cost-effective 22 alternative for maintaining fuel diversity within FPL's generation portfolio. 23 FGPP will provide greater system reliability, will help to dampen the effect of 24 volatility in natural gas prices, and be a step forward in the efforts to achieve

greater energy independence. The decision to grant a determination of need for this addition to FPL's portfolio should be based on similar findings that these units are the best, most cost-effective alternative for preserving fuel diversity, thereby providing greater reliability and lower fuel-cost volatility for FPL's customers than would be achieved by adding gas-fueled generation at this time.

6

7

8

1

2

3

4

5

Q. Given some of the factors and issues you have described above, how does this request for a determination of need differ from the most recent requests for determinations of need filed by FPL and granted by the Commission?

9 A. FPL's request that the Commission grant a determination of need for FGPP and 10 approve the related cost recovery methodology proposed by FPL is predicated on 11 several key factors that are different from those associated with the requests for recent determinations of need submitted in connection with Martin Unit 8 and 12 Manatee Unit 3, Turkey Point Unit 5, and the West County Energy Center: 13 specifically, as discussed above and elsewhere by FPL witnesses, (a) an 14 15 overarching objective to maintain fuel diversity on FPL's system, (b) the very 16 large capital costs associated with this project, and (c) the significant uncertainties associated with construction and other costs, as well as the project timetable. 17

18 Q. How are you suggesting the Commission approach this proceeding and
 19 FPL's request given the uncertainties you describe above, and the differences
 20 you have highlighted between this and past requests for a determination of
 21 need?

A. While the Commission should consider all of the factors set forth in the Florida
Power Plant Siting Act ("PPSA"), particular emphasis and weight should be

1 placed on the need for fuel diversity consistent with the recent amendments to Section 403.519, Florida Statutes, as I have discussed, and as supported by other 2 witnesses for FPL. This is especially important given the number of significant 3 4 variables involved in assessing the actual economics of FGPP. The Commission must recognize that there can be no guarantee that the future state of the world 5 will always make FGPP's overall economics the least cost as compared to those 6 of additional natural gas-fired capacity. Clearly, if real relative natural gas prices 7 declined and remained low after FGPP was completed – admittedly an unlikely 8 scenario but not an impossible one - customers would have been better off had 9 they and FPL "bet" on natural gas. But that would be a bet that few rational 10 customers would want to make. With the addition of FGPP, customers gain 11 protection: if natural gas prices are relatively low, then bills are relatively low 12 13 because the existing natural gas-fired units in the fleet offer even better economics than was expected when they were built; on the other hand, if natural gas prices 14 are relatively high then the economics of FGPP look even better and provide 15 some offset to the impact of those higher gas prices. 16

17

Other economic uncertainties will come into play as well, as noted above, and described in more detail by Messrs. Yeager, Damon and others. For example, natural gas-fired units are more easily sited, involve shorter construction lead times, and require smaller capital investments. But, as I have indicated, and other FPL witnesses discuss in more detail, a coal plant brings important benefits of fuel diversity.

Because of these uncertainties, and given the very large capital commitment the Company and its customers will need to make in order to pursue the benefits of fuel diversity, FPL is requesting clear and unwavering direction from the

241

- 4 Commission on these significant policy choices regarding fuel selection and the 5 prudence of FGPP and its costs.
- 6 Q. Please summarize the specific requests FPL is making with regard to
  7 establishing the prudence of FGPP and its costs.

1

2

3

FPL is requesting that, in connection with granting a determination of need for 8 Α. FGPP, the Commission also specifically find that, based on the projected installed 9 costs of FGPP and the associated facilities, as well as the other projected costs 10 and assumptions, the decision to build the project is prudent and, subject to an 11 annual review process that Mr. Silva describes, that the proposed costs, including 12 13 additional costs that are imposed pursuant to subsequent environmental legislation or regulatory requirements, likewise are prudent. Further, in light of the dynamic 14 nature of key factors upon which this project is predicated, we are requesting an 15 annual review of actual costs incurred and projected costs, as well as the 16 continued feasibility of the project. In addition, we are also requesting that the 17 Commission approve a mechanism for the recovery of costs incurred should the 18 project not be completed due to a subsequent Commission determination or is 19 otherwise precluded from being completed. 20

## Q. Why does FPL feel that it is necessary to make these requests in the context of its request for a determination of need?

3 By stating the applicable cost-recovery principles and providing for annual A. reviews, the Commission's need determination order will provide a certain 4 measure of assurance to investors who will be asked to finance the project. For 5 example, affirming in the need determination order that prudently incurred costs 6 will be recoverable whether the project is ultimately completed or not will, all 7 other things equal, help maintain a more favorable credit risk profile for the 8 Company and help offset some of the negative impact that such a large, complex 9 and uncertain project would otherwise have. 10

11

FPL believes that the decision to construct FGPP is in the long-term interest of our customers, but recognizes that the capital costs for the project are very large, requiring a significant financial commitment on the part of FPL and its customers. Moreover, the market forces and public policy issues that influence this decision are highly fluid and dynamic, and there are many risks outside of FPL's and this Commission's control that affect the feasibility of the project. FPL's witnesses describe these risks in considerable detail.

19

FPL believes that the interests of all stakeholders in this proceeding are well served by a careful delineation of the regulatory processes and procedures applicable to this project. The findings and affirmations that FPL is asking be included in the Commission's need determination Order, while perhaps striking

some as regulatory truisms (e.g., all prudently incurred costs should be recoverable or that costs associated with environmental compliance will be recoverable through the Environmental Cost Recovery Clause), are valuable precisely because of the clarity they will bring to the regulatory treatment of costs associated with a project such as FGPP.

6

While the time for charging FGPP costs to customers in rates will not occur for
several years, the benefits of providing clear cost-recovery and regulatory
direction for FGPP begin sooner.

10 Q. How will the addition of FGPP affect customer bills?

While the capital costs of FGPP are high relative to comparable sized gas-fired 11 A. generating units, these capital costs are offset to a large extent by fuel savings. 12 Using the example in Mr. Silva's testimony, the estimated net effect on a 13 3.63 residential 1,000 kWh monthly bill for both FGPP units is \$3.96. The estimated 14 increase in the 1,000 kWh residential base bill for the first year revenue 15 requirements for both FGPP units is \$9.41, and the corresponding projected fuel 16 savings for both units, compared to not adding FGPP or any new generation, is 17 43.56 3,63 5,78 \$5.45 for a net effect of \$3.96. This \$3.96 per month or \$47.52 per year for FGPP 18 19 compares very favorably to the bill increases experienced by our customers in 2006 due to spikes in natural gas prices. 20

### Q. Should the Commission grant FPL's request for a determination of need for FGPP?

A. Yes. Adding FGPP to FPL's power plant portfolio is the best, most cost-effective
solution FPL can pursue to maintain fuel diversity and system reliability for our
customers. Specifically, this addition is needed to preserve a balanced, fuel
diverse generation portfolio, as well as to maintain an adequate level of
generation reserve margin.

**SUMMARY** 

- 8
- 9
- 10

#### 11 Q. Please summarize your testimony.

FPL believes this advanced technology coal project is needed in Florida to 12 A. 13 maintain FPL's fuel diversity - a goal shared by the Florida legislature and this 14 Commission. Greater fuel diversity, in turn, will enhance the reliability of our Further, the advanced 15 power supply and help stabilize electricity prices. technology design and state-of-the-art pollution controls at FGPP will minimize 16 emissions, enabling FPL to continue its tradition of sound environmental 17 Building this state-of-the-art, advanced technology coal-fired 18 management. power plant is the right choice for FPL and its customers. In light of the 19 magnitude of the financial commitment that FPL and its customers will need to 20 make to construct FGPP, and the significant public policy issues associated with 21 the choice of fuel for this generating unit, FPL is requesting a determination from 22 the Commission relative to the prudence of the project and the means by which 23

- such costs would be reflected in rates, including the establishment of an annual
   review process by which the prudence of actual costs incurred could be assessed
   and the continued feasibility of the project considered.
- 4 Q. Does this conclude your direct testimony?
- 5 A. Yes.

2

3

4

5

6

7

8

9

10

11

BY MR. LITCHFIELD:

**Q.** Mr. Olivera, have you prepared a summary of vour direct testimony?

A. I have.

**Q.** Would you please provide that to the Commission at this time.

A. I will. Thank you. Good afternoon, Chairman Edgar, Commissioner Carter, and Commissioner McMurrian. I really appreciate the opportunity to present the summary of my testimony and an overview of the FP&L Glades Power Park.

12 Today we have a long roster of witnesses that 13 will provide extensive details on all aspects of the 14 need analysis and specifications of the plant. FP&L's 15 Glades power plant is the best, most cost-effective way 16 to met the growing energy needs of our customers. It 17 takes into account fuel diversity, it provides reliable 18 power at a reasonable cost, and it's environmentally 19 responsible.

20 We need to maintain fuel diversity in our 21 system. The Florida Legislature has encouraged a more 22 diverse fuel mix. This Commission in its order 23 approving the need for the West County combined cycle 24 plant reminded us of the need for greater fuel 25 diversity.

FLORIDA PUBLIC SERVICE COMMISSION

Natural gas is a great fuel, and our customers have really benefited from it, but you can have too much of a good thing. And without this plant, 71 percent -we will be 71 percent dependent on natural gas by 2016. Natural gas has been a very volatile fuel, and the U.S. has become increasingly dependent on foreign sources of natural gas and is projected to be even more so in the future.

1

2

3

4

5

6

7

8

9 The United States has an abundant supply of 10 coal, and unlike other fossil fuels, this is something 11 that we have, as you'll hear from one of our witnesses, 12 over a 200-year supply of coal. This is one way that it will contribute to energy independence in our country. 13 14 Coal will also help mitigate the effects of delivery 15 disruptions and price spikes that we have seen in the 16 last few years during the more active hurricane seasons. 17 So this project goes a long ways towards giving us the 18 extra diversity.

Let me just briefly turn to the environmental side. FP&L is an environmental leader. This plant is consistent with this. The technology selected will be highly efficient and cheaper and cleaner than other solid fuel alternatives. It will employ state-of-the-art emissions. You will hear from expert witnesses how well the air impacts of this plant compare

FLORIDA PUBLIC SERVICE COMMISSION

with state and federal standards that are in place to 1 2 protect public health and welfare. Environmental considerations are important to us, and should be to 3 everyone evaluating this project. With this plant, we 4 5 will continue to be one of the cleanest, lowest-emitting utilities anywhere in the country, and our emissions 6 7 profile per megawatt-hour will be better than it is 8 today.

9 Let me briefly touch on the need. No one is 10 more aware than this Commission that Florida's economy and its population continue to grow. No utility must 11 12 plan for the growth that we have in Florida. In the past decade, FP&L has added an average of 85,000 new 13 customers each year. In the past 20 years, electric 14 usage per customer has increased by approximately 15 16 30 percent. The need for this plant is clear.

Despite one of the most successful demand-side 17 management programs in the country, our growth is still 18 the equivalent of a power plant a year, or about 19 20 600 megawatts. The United States Department of Energy 21 ranks Florida Power & Light as number one in 22 conservation and number four in energy management programs. We remain committed to pursuing 23 24 cost-effective DSM programs. Between 2006 and 2015, 25 FP&L will add almost 1,400 megawatts of demand-side

FLORIDA PUBLIC SERVICE COMMISSION

management programs, and this will avoid two or three good sized power plants. But growth in the state far exceeds what can be achieved with DSM.

1

2

3

4

5

6

7

8

9

10

11

12

The same is true for renewables. Our affiliate company, FP&L Energy, is the world's largest renewable provider. They're number one in wind in the U.S. and number one in solar. And so we have access to people who understand this technology. We've been focused on renewables. We are an industry leader in purchased renewables. But right now, there are not enough renewables to offset 600 megawatts of growth each year.

We simply cannot get there with DSMs and renewable programs. From time to time, we must add base load capacity. And we firmly believe that this is the best solution that we can pursue at this time to maintain fuel diversity, to ensure system reliability, and to mitigate price volatility for our customers. We have a real need, and this is the way to meet it.

I thank you for this opportunity to speak regarding our request. This concludes the summary of my testimony.

CHAIRMAN EDGAR: Thank you.
 MR. LITCHFIELD: Madam Chairman, FPL tenders
 Mr. Olivera for cross-examination.

FLORIDA PUBLIC SERVICE COMMISSION

CHAIRMAN EDGAR: Thank you. Ms. Perdue, any 1 2 questions? 3 MS. PERDUE: No questions. CHAIRMAN EDGAR: No questions. Okay. 4 Mr. Beck. 5 MR. BECK: No questions. 6 7 CHAIRMAN EDGAR: No questions? Mr. Gross. MR. GROSS: Thank you, Madam Chair. I do have 8 9 questions. I don't know whether to say good afternoon or 10 good evening, Mr. Olivera. 11 I would like to pass out an exhibit that I 12 would like to question Mr. Olivera about. 13 CHAIRMAN EDGAR: Mr. Gross, I am on -- we'll 14 15 mark it 159. And can you give me a title? 16 MR. GROSS: This is USCAP, "A Call for Action." 1718 CHAIRMAN EDGAR: Thank you. (Exhibit 159 marked for identification.) 19 MS. BRUBAKER: Just a point of clarification, 20 if I may, Madam Chairman. 21 CHAIRMAN EDGAR: Ms. Brubaker. 22 23 MS. BRUBAKER: I believe this is the same 24 document or substantially the same document that was 25 identified as Hearing Exhibit 148 with Mr. Cavros's FLORIDA PUBLIC SERVICE COMMISSION

public testimony. I just want to point that out, 1 2 because I've had several people say, "Deja vu." CHAIRMAN EDGAR: Okay. I know that the front 3 is the same, but I'm not sure if all of the content is. 4 5 MS. BRUBAKER: Okay. Thank you. 6 MR. GROSS: Mr. Olivera --7 MR. LITCHFIELD: I'm sorry, Madam Chairman. 8 Before we -- I'm sorry. 9 CHAIRMAN EDGAR: Mr. Litchfield, yes. 10 MR. LITCHFIELD: I'm sorry. I'm looking at 11 the exhibit, and it actually appears to be a composite 12 exhibit. It appears to consist of more than just USCAP 13 Call for Action. If I'm wrong about that, counsel could 14 perhaps clarify. 15 CHAIRMAN EDGAR: Mr. Gross. 16 MR. GROSS: Well, that's news to me. I'11 17 stand -- oh, I see. At the bottom, it looks like 18 another exhibit inadvertently got stapled. Just tear 19 that off. 20 MR. LITCHFIELD: That would be the last three 21 pages, at least according to my copy. 22 CHAIRMAN EDGAR: And that's what I'm looking 23 at as well. 24 MR. GROSS: Yes, yes. And I apologize for 25 that. I was unaware that that inadvertently was FLORIDA PUBLIC SERVICE COMMISSION

attached. 1 2 CHAIRMAN EDGAR: Okay. We've got a lot of paperwork. Thank you, Mr. Litchfield, for pointing that 3 So the last three pages with the charts will be 4 out. 5 removed from what had been marked 159, and we'll go from 6 there. 7 CROSS-EXAMINATION BY MR. GROSS: 8 Mr. Olivera, this document, "USCAP, A Call for 9 Q. Action," that has been marked as Exhibit 159, are you 10 familiar with this document? 11 Yes, I'm generally familiar with the contents. 12 Α. 13 Q. Can you just in general terms tell me what 14 this document represents? It is a document drafted by large corporations 15 Α. in the U.S. that sort of laid forth a series of 16 principles on how we should go about climate change 17 18 regulation or legislation. Is it true to your knowledge that FPL Group, 19 Q. FPL's parent, is a signatory to this report? 20 21 Yes, it is. Α. 22 Q. Is it true that this report is a consensus document that reflects the collective view of the 23 participants? 24 25 It represents generally the views of all the Α. FLORIDA PUBLIC SERVICE COMMISSION

2

3

participants.

Q. Would you please turn to page 6 of the document.

4 This document on page 6, among other things, 5 says that Congress should specify an emission target zone aimed at reducing emissions by 60 percent to 6 7 80 percent from current levels by 2050; is that correct? 8 Α. Bear with me while I look for the specific 9 wording, but it --10 MR. LITCHFIELD: Perhaps Mr. Gross can refer 11 him to the specific sentence. 12 MR. KRASOWSKI: Excuse me, but we don't 13 have --14 CHAIRMAN EDGAR: Are you actually on page 7? 15 Are you looking at page 7? I'm sorry, Mr --16 THE WITNESS: I'm looking on page 6. I'm 17 sorry. I'm having trouble finding it. CHAIRMAN EDGAR: Mr. Olivera, just a moment. 18 Mr. Krasowski. 19 20 MR. KRASOWSKI: I'm sorry. We found --21 CHAIRMAN EDGAR: That's okay. MR. KRASOWSKI: -- page 6. We were having 22 23 trouble finding page 6. 24 CHAIRMAN EDGAR: I understand. I was myself 25 there for a few moments, because we've got two pages per FLORIDA PUBLIC SERVICE COMMISSION

2

page, I think.

BY MR. GROSS:

Okay. I'm sorry. It is page 7, and it is 3 Q. confusing the way this document has been prepared, the 4 format. Two pages are really on one sheet, and it's at 5 the bottom of the first column on page 7, on the 6 left-hand column. 7 8 Α. I see it now. Thank you. And by being a signatory to this paper, is 9 Q. that a position endorsed by FPL? 10 Yes, it is. 11 Α. 12 Okay. Is it true that this reduction is Q. needed in order to stabilize greenhouse gas levels at a 13 14 carbon dioxide equivalent level between 450 to 550 parts 15 per million, the level scientists say is required to 16 avoid serious climate disruption? Let me just preface and tell you that while we 17 Α. 18 signed on to this, I am not an expert that can talk to 19 you about the speed that these programs should be implemented. As we signed on for these programs, we 20 21 signed on with really the belief that a policy was 22 necessary and that we do need slow down the emissions. 23 I am not an expert, and I'm not here to address with you the rate that it should be done. 24 25 I understand, and that's a fair statement. Q. Ι FLORIDA PUBLIC SERVICE COMMISSION

2

3

4

5

6

7

8

9

10

11

12

appreciate that.

As you understand it, FPL Group is committed to the principles and recommendations identified in this report?

A. Yes. We do believe that it is important that as a matter of public policy that we address the effects of climate change.

Q. I would like to ask you a question about page 17 of your direct testimony. It looks like it was filed on February 1st, but actually dated January 29. Do you have a copy of that?

A. I do.

13 Q. Is it your testimony that CO<sub>2</sub> regulation is 14 likely?

A. I think we -- yes, we believe that it is likely, and we also believe that it will be good public policy to have legislation that identifies some -imputes a cost to carbon emissions, either through cap and trade or through a carbon fee, which is really what we have in a separate document that we have recommended.

21 Q. So is it fair to say that FPL supports that22 type of regulation?

A. Yes, it's fair to say that we support some
sort of cost associated with carbon emissions.
Q. And is it true that the point of such

FLORIDA PUBLIC SERVICE COMMISSION

3

4

5

6

7

8

9

regulation would be to stabilize  $CO_2$  to avoid major impacts of global warming, like sea level rise, which would seriously affect the State of Florida?

A. The general principle is that you slow down the emissions of carbons, ultimately you stabilize it, and then in the third phase, you reduce carbon emissions. That's kind of the general framework of what really all of the things that we've been participating in espouse.

10 I may also like to add that we are in support 11 of this legislation, not just because we are very 12 concerned about climate and the impact, because we believe that it's important that there be economic 13 signals in terms of carbon emissions so that those 14 15 entities that produce, effectively, the low-hanging fruit, that there's a cost associated with that so that 16 17 that gets tackled first.

We also have been involved in the dialogue 18 19 because we're very concerned that our customers could 20 end up in a situation where they end up -- our customers have, frankly, paid the price for us to be a clean 21 22 burning utility, because we burn so much natural gas and because our emissions are low. Under some of the 23 24 scenarios that have been contemplated, our customers 25 could actually end up paying twice. They've paid for us

FLORIDA PUBLIC SERVICE COMMISSION

being a clean utility, and then they could end up having to pay a tax to clean up dirtier plants elsewhere. So we also believe that it's good for us to be engaged, to participate and to try to the best extent that we can to try to ensure that whatever legislation ultimately gets put in place also gives our customers credit for what they have effectively already paid for, which is this clean generation portfolio that we have.

1

2

3

4

5

6

7

8

13

14

15

16

17

20

21

9 **Q.** Mr. Olivera, as the USCAP document says, that 10 would mean reducing CO<sub>2</sub> emissions by 60 to 80 percent by 11 2050. Would you agree that that's a pretty dramatic 12 reduction?

A. Yes, it would be a significant reduction.

Q. So if we're going to confront the problem that gives rise to the need for  $CO_2$  reductions, which FPL supports, the federal reduction requirements would need to be pretty stringent; would you agree?

18 A. I think you would -- yes, you would have to
 19 have some significant costs imputed in carbon emissions.

**Q**. So would it be fair to say that we should expect rather aggressive CO<sub>2</sub> controls?

A. I can't sit here today and tell you what will happen in terms of federal regulation or what will happen through other regulatory agencies. It would be pure speculation on my part. I will tell you that we

FLORIDA PUBLIC SERVICE COMMISSION

support it. We think it's good public policy. But the rate that that will go into effect, how high those taxes will be, you know, I think there's a range of outcomes.

1

2

3

I do think that in the context of this 4 particular plant, I think we have modeled what we 5 believe are reasonable carbon costs, and you will hear 6 that both from Mr. Silva, who is the individual 7 primarily in charge of the modeling, and you will also 8 hear it from Mr. Judah Rose, who is the outside 9 consultant that we hired to help us really validate 10 whether the assumptions that we were making about 11 carbon, carbon costs, whether it's cap and trade -- it's 12 really a proxy, whether it's cap and trade or whether 13 it's a carbon fee, that we have adequately reflected 14 that in the economic analysis that we conducted for 15 coming forward with the need. 16

Mr. Olivera, would you please look at page 9 17 Q. of this USCAP document in the right-hand column, on the 18 19 right-hand side of page 9, the middle paragraph. I 20 would like to refer your attention to what's entitled "New coal-based energy facilities and other stationary 21 22 sources." And it says, "Policies are needed to speed 23 transition to low- and zero-emission stationary sources and strongly discourage further construction of 24 stationary sources that cannot easily capture CO2 25

FLORIDA PUBLIC SERVICE COMMISSION

emissions for geologic sequestration. Regardless of how allowances are generally allocated, they should not be allocated to such new sources."

Now, you've previously stated that FPL is a signatory and supports the policies in this document; correct?

A. Yes, correct.

1

2

3

4

5

6

7

Q. Okay. And this policy is to strongly
discourage further construction of stationary sources
that cannot easily capture CO<sub>2</sub> emissions for geologic
sequestration. Now, isn't it true that the proposed
FGPP units are stationary sources that cannot easily
capture CO<sub>2</sub> emissions at this time?

A. I think what you will hear from our expert
witness, Mr. Jenkins, is that our facility has the same
ability to capture carbon and sequester carbon as an
IGCC facility.

Another data point is, there was recently an MIT study that was released that frankly also validated that, that both technologies will have an equal chance of ultimately being able to ultimately capture carbon. So I would say that our plant has that.

And in this document, it does contemplate that there needs to continue to be a role for advanced coal technologies in this country. Fifty percent of the

FLORIDA PUBLIC SERVICE COMMISSION

energy that's generated in this country is generated by coal, so it does not contemplate that we will either shut down all these coal plants or not use this abundant fossil fuel that we have.

1

2

3

4

5

6

7

8

22

23

Q. Well, I guess my question wasn't really a comparison between the plants that your company is proposing and IGCC plants, but can your plant easily capture  $CO_2$  emissions for geologic sequestration?

Our plant has the same probability, the same 9 Α. ability today to capture carbon as any other available 10 technology that's out there. And I would suggest if you 11 want to get a technical explanation, we have a witness, 12 Mr. Steve Jenkins, who is really a highly technical guy 13 that can really go into a lot of details with you about 14 why either technology today has the ability to 15 ultimately capture carbon. Recognize, this is all 16 evolving technology. 17

18 Q. I understand that -- you've clarified that 19 you're not an expert in this area, but do you know where 20 the CO<sub>2</sub> emissions would be sequestered with the 21 technology that FPL is the promoting?

A. I'm sorry. I'm not sure that I understand.
 Which CO<sub>2</sub> emissions are you referring to?

24 Q. For the plants that you are proposing, where
25 would the CO<sub>2</sub> emissions be sequestered?

FLORIDA PUBLIC SERVICE COMMISSION

I'm sorry. I'm still a little -- you're Α. 1 talking about the Glades power plants? 2 Yes, the Glades plants. 3 Ο. MR. LITCHFIELD: Madam Chairman, may I ask for 4 a clarification with respect to the question as well? 5 CHAIRMAN EDGAR: Mr. Litchfield. 6 MR. LITCHFIELD: Does Mr. Gross wish 7 Mr. Olivera to assume that that capture technology has 8 become commercially viable? If that's the predicate, 9 then I have no objection to the question. 10 MR. GROSS: Well, this document is strongly 11 discouraging further construction where the technology 12 is not viable, and I'm not getting a straight answer to 13 that question. I mean, does the -- do the Glades 14 15 plants --CHAIRMAN EDGAR: Hold on a second. 16 MR. GROSS: Okay. 17 CHAIRMAN EDGAR: I think it's all very 18 technical, and I think we're all trying to get there. 19 Mr. Gross, I will allow you to ask the question again. 20 But if you can answer Mr. Litchfield's question, that 21 might be helpful for the witness as well. 22 MR. GROSS: I'm not saying -- well, I think 23 he's asking me a question that's going to be part of our 24 case. Mr. Litchfield, were you asking is there 25

FLORIDA PUBLIC SERVICE COMMISSION

commercially viable CO<sub>2</sub> capture technology? 1 MR. LITCHFIELD: No. I was simply attempting 2 to clarify what I though was some potential confusion on 3 the part of the witness and potentially in the dialogue 4 5 that I was hearing. And I just simply wondered whether 6 you were asking him to assume commercial viability of 7 capture, and then with that question, where would it be sequestered. That was really simply all I was trying to 8 9 do. 10 MR. GROSS: Okav. 11 BY MR. GROSS: 12 Well, is it fair to say that the plants, the Ο. 13 Glades FGPP plants do not currently have commercially 14 viable CO<sub>2</sub> capture technology? 15 Yes, it is fair to say today, with the current Α. 16 specifications, the plant does not have carbon capture. 17 But I do want to point, since we're talking 18 about this document, to page 5, which really lays out 19 the premise of the document. In the first paragraph, it 20 really says the objective -- one of the principles is to 21 promote the technology that will ultimately allow for 22 carbon capture in a cost-effective way and storage. And 23 I would just read the last two sentences, 24 "cost-effective carbon capture and storage, which will 25 be particularly important in the deployment of advanced

FLORIDA PUBLIC SERVICE COMMISSION

3

4

5

6

7

8

9

10

11

12

13

14

17

18

19

20

21

22

23

24

coal technologies." So one of the principles of this is, let's promote the R&D associated with these types of technologies and try to do it in a cost-effective way.

Q. Okay. I'm going to ask one more question about this. This document strongly discourages construction of coal plants that cannot easily capture CO<sub>2</sub> emissions for geologic sequestration. And the plants that FPL is proposing, the Glades FGPP plants, cannot easily capture -- or cannot capture at this time CO<sub>2</sub> emissions for geologic sequestration; is that

A. Yes. I believe I've already answered that question.

Q. Okay. Thank you. We'll move on.

Now, is it your testimony that FPL has lower emission rates than other large utilities?

A. It is my testimony that we have lower emission rates than most other utilities in the U.S.

Q. Now, is this due in large part to the fact that FPL has relatively less coal in its portfolio?

A. Yes. It's a combination of having a large dependence on natural gas and having a very new fleet of combined cycle plants, natural gas-fired combined cycle plants.

25

Q. On page 19 of your testimony, you state that

FLORIDA PUBLIC SERVICE COMMISSION

FPL's CO2 per megawatt is trending down even with the 1 2 FGPP plants? 3 MR. LITCHFIELD: May I ask for a line number, 4 please? 5 CHAIRMAN EDGAR: Mr. Gross, what I'm looking 6 at looks like it may be the bottom of page 18 and the 7 top of 19. 8 MR. GROSS: Yes. I'm sorry. I have the page 9 numbers. I just saw that language. Oh, here it is. I 10 see it. It's at the very bottom of page 18, "In fact" 11 -- lines 21 through 23. "In fact, as Mr. Ken Kosky 12 states in his testimony, even with the addition of FGPP, 13 FPL's average rate of CO<sub>2</sub> emissions would be trending downward." 14 15 BY MR. GROSS: 16 That is your testimony? Q. 17 Α. Yes, it is. 18 Okay. And if these questions are beyond your Q. 19 expertise, please state, as you have already done so. 20 Strictly speaking, to address global warming, it is 21 total  $CO_2$  output that matters, not  $CO_2$  rates per 22 megawatt; is that correct? 23 Α. I think you have to look at both the actual 2.4  $CO_2$  and the rates of emissions when you're putting 25 together policy on what's the appropriate thing to do. FLORIDA PUBLIC SERVICE COMMISSION

Would the FGPP units increase FPL's total CO2 1 Q. output? 2 Yes, they would. 3 Α. Ο. Would you expect FGPP to be still operating in 4 5 2050, the date by which we need to reduce  $CO_2$  emissions by 60 to 80 percent? 6 7 Yes, I really do believe that between now and Α. then we will come up with cost-effective technologies 8 9 that will address the concerns that we have for -- with climate change. I am an engineer, and I'm a firm 10 believer that if we set our minds to it as a country and 11 12 as a society that we'll be successful. 13 Between now and 2050, isn't it true that the Q. 14 FGPP units would emit millions of tons of CO<sub>2</sub> every 15 year? I haven't done the calculation. 16 Α. 17 Q. Is FPL proposing now to offset its CO2 emissions by closing some other facility? 18 Not at this time. 19 Α. Now, do you recall in your testimony 20 Q. 21 explaining that without FGPP, 71 percent of FPL's power would come from natural gas in 2016? 22 23 Yes, I recall saying that we will become Α. 24 increasingly dependent on natural gas, and if we replace the output of this Glades plant with natural gas, we 25 FLORIDA PUBLIC SERVICE COMMISSION

would be -- 71 percent of our energy will come from 1 2 natural gas. 3 Ο. Is it correct that this statement assumes that FPL will not identify any DSM efficiency or conservation 4 5 measures beyond what it already anticipates? Α. I think the statement assumes 1,500 megawatts 6 of DSM or close to 1,500 megawatts of DSM in the 7 calculation. That's over the next five to seven years. 8 Does the statement also assume that FPL will 9 0. 10 not generate any additional power from renewable 11 sources? I will have to defer to Mr. Silva on the 12 Α. 13 details, but I believe that it assumes some incremental 14 level of renewables, but that would not be sufficient to 15 significantly alter the energy mix. 16 Assuming FPL is unable to build FGPP, is it Q. 17 FPL's intent to stop looking for additional DSM 18 efficiency and conservation opportunities beyond those 19 already planned? 20 Α. No. We will continue to look for 21 cost-effective ways to increase DSM. But based on the 22 information we have today and the analysis that we have 23 conducted today, it's clear to us that the majority or 24 all of the capacity associated with the Glades power 25 plant would have to be replaced with natural gas.

FLORIDA PUBLIC SERVICE COMMISSION

Q. Assuming again that FPL is unable to build the FGPP units, would it be FPL's intent not to aggressively pursue opportunities for renewable sources of energy?

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

25

A. No. I think our record speaks for itself, that we have been, and with the Commission's direction, we have been aggressively pursuing DSM, and we will continue to do so. But all of the analysis that we have done -- and our witness, Dennis Brandt, can go into a lot more detail -- shows that we have done everything we can. And it's because we have concluded that we can't do much more that we're here today requesting approval of this need.

Q. Isn't it fair to say that the things that we've been discussing, DSM efficiency and conservation opportunities and opportunities for renewable sources of energy, would have an impact on the estimate that natural gas will reflect 71 percent of FPL's generation?

A. No. I think I have already said to you that
we are including that in our conclusion that 71 percent
of it would have to be -- would end up being natural gas
if we're not successful in building this plant.

Q. Would purchased power if it were available have an impact on how much of FPL's power is subject to potential disruption and/or volatility?

A. Can you elaborate on your question? Because

FLORIDA PUBLIC SERVICE COMMISSION

the answer is really dependent on what kind of purchased 1 power were we're talking about and where it comes from. 2 I'll move on. And I apologize. I have a page 3 Q. number, but no line numbers. 4 Please look at page 8, lines 19 through 21 of 5 6 your testimony. 7 MR. LITCHFIELD: I'm sorry, Mr. Gross. What 8 page was that? MR. GROSS: Page 8, lines 19 through 21. 9 BY MR. GROSS: 10 11 Have you found that, Mr. Olivera? Q. 12 Yes, I have. Α. You state that the exclusive addition of 13 Q. natural gas generation would likely result in more 14 volatility and higher fuel costs; correct? 15 Yes, that's what it says. 16 Α. This is an educated guess; is that true? 17 Q. 18 No, I wouldn't say that it's a guess. Ιt Α. relies on outside consultants that are in the business 19 20 of forecasting fossil fuel prices, and it reflects our 21 understanding of what's happening to the supply/demand 22 picture of natural gas in the United States. Demand for natural gas is growing at a faster rate than we're able 23 24 to get the supply out of the United States. So that 25 tightening relationship between supply and demand is

FLORIDA PUBLIC SERVICE COMMISSION

3

4

5

6

7

8

9

10

11

12

15

16

17

18

19

23

pushing up the price. It's classic economics. It's pushing up the price of natural gas.

Q. Well, given the current state of change with respect to energy policy and global warming, is this kind of -- isn't it true that this kind of prediction is even less reliable than it otherwise would be?

A. No. I think based on all the information that we have today, and if you assume that we will ultimately have some sort of carbon regulation, that there will be a tax, a fee, or some kind of a cap-and-trade system, ultimately that's going to push up the price of natural gas because it produces less carbon.

Q. Would you please look at page 13, starting
with lines 17 through 19.

A. I'm sorry. Can you repeat the line numbers?Q. Page 13, lines 17 through 19.

A. Okay.

Q. Have you found that?

A. I have.

20 **Q.** Okay. You mentioned there that there's 21 significant uncertainty regarding labor and material 22 costs; correct?

A. Correct.

Q. Is it possible that these uncertainties may
make the FGPP units significantly more expensive?

FLORIDA PUBLIC SERVICE COMMISSION

I will defer to Mr. Yaeger on any kind of Α. 1 detailed discussion about the cost estimates. We 2 believe that we have taken reasonable precautions in 3 terms of trying to lock in as much of the price as we 4 can, but it is one of the risks associated with the 5 project, and I will defer to him for a more detailed 6 explanation. 7 MR. GROSS: That concludes my questions. I 8 would like to move the USCAP document, 159, into 9 evidence. 10 CHAIRMAN EDGAR: Okay. My preference, 11 12 Mr. Gross, if that's all right, is to take up exhibits 13 at the end of the witness's testimony. That's just 14 generally the way I like to do things, if that works. MR. GROSS: Thank you. That's fine. 15 CHAIRMAN EDGAR: Okay. Thank you. 16 Commissioners? Commissioner Carter. 17 COMMISSIONER CARTER: Thank you, Madam 18 19 Chairman. Good afternoon, Mr. Olivera. I think that in listening to your discussion, 20 you're saying that -- in the discussion about carbon 21 taxes or whatever the case may be, whatever iteration it 22 23 comes in, it's okay with FPL so long as everyone pays 24 their fair share. Is that --25 MR. KRASOWSKI: Excuse me, Commissioner FLORIDA PUBLIC SERVICE COMMISSION

1 Carter. COMMISSIONER CARTER: One moment, one moment. 2 You have to speak to the Chair. She's --3 CHAIRMAN EDGAR: Mr. Krasowski, you will have 4 the opportunity to ask questions. Is that what you were 5 going to ask? 6 MR. KRASOWSKI: Yes. I thought we went this 7 way and then -- but --8 CHAIRMAN EDGAR: We generally do, but we defer 9 10 Commissioners, who can jump in pretty much at any time 11 that they choose. 12 MR. KRASOWSKI: Yes, excuse me, absolutely. I 13 apologize. 14 CHAIRMAN EDGAR: But if I do ever miss 15 somebody, it doesn't bother me to make sure that I'm 16 aware of that. Okay. Commissioner Carter. 17 COMMISSIONER CARTER: Thank you, Madam Chair. I think you were saying that you don't want to 18 19 pay -- the context was that you didn't want to pay more 20 than your fair share; is that right? 21 THE WITNESS: Yes, Commissioner. I think in 22 the context that I was talking about, one of our 23 concerns, again, one of the reasons why we have stepped 24 into the whole dialogue about what's the appropriate 25 climate change legislation is, we are concerned that our

FLORIDA PUBLIC SERVICE COMMISSION

customers, which are roughly half the population of 1 2 Florida, they have been for a long time paying for these 3 natural gas combined cycle plants that have a very good emissions profile. They're clean plants. 4 5 And our concern is that on some of the 6 legislation that has been discussed, in some cases 7 proposed, there would be an allocation, depending --8 let's just get to the economics. The areas where they 9 have the dirtier coal-burning plants, those companies 10 would end up getting, effectively, paid to clean up the 11 plants, but those payments would come from the general 12 body of customers. And in fact, in some cases, we would pay a disproportionate share for doing that, even though 13 14 our plants don't need to be cleaned because they are 15 already clean plants. So we are concerned and want to make sure that we have a place at the table when these 16 17 those discussions are going on. 18 COMMISSIONER CARTER: Just one follow-up. Well, it's not really a follow-up. It's a different 19 subject matter. Is that okay? 20 21 CHAIRMAN EDGAR: You have the floor. 22 COMMISSIONER CARTER: Thank you, Madam Chair. You remember, or are you familiar with the 23 X Prize competition they have? I think this year it's a 24 \$10 million award for enterprising aeronautics, and I 25

FLORIDA PUBLIC SERVICE COMMISSION

think Dick Rutan won it for the space plane that flew about 64 miles up. Do you remember that?

1

2

THE WITNESS: Oh, yes. I think I am, yes. 3 COMMISSIONER CARTER: Would it be totally 4 absurd to expect, or maybe for the industry at large, 5 not just the IOUs, but the entire industry, co-ops, 6 munis, et cetera, to offer something similar to an 7 X Prize in, you know, electricity generation that would 8 come up -- I mean, most people said it couldn't be done, 9 but Dick Rutan came up with the right kind of skin on 10 his plane, he got the right pilot, he got the right 11 construction, got the right wind velocity, and so that 12 barrier no longer exists. Do you understand what I'm 13 saying? 14

THE WITNESS: I understand exactly what you're 15 saying, and I think my answer would be no. I think at 16 this point, you know what, we have to encourage 17 everything. And sometimes innovation comes from the 18 smallest places. And if you think about just the 19 genesis of Microsoft, you know, a couple of guys in a 20 garage. So I would say no. You never know where that 21 spark of innovation in technology will come from, and I 22 think we need to consider it. 23

24COMMISSIONER CARTER:Thank you, Madam Chair.25CHAIRMAN EDGAR:Mr. Krasowski, do you have

FLORIDA PUBLIC SERVICE COMMISSION

questions on cross for this witness? 1 MR. KRASOWSKI: Yes, Madam Chair. Thank you 2 3 very much. CROSS-EXAMINATION 4 BY MR. KRASOWSKI: 5 Mr. Olivera, on page 18 -- we were on page 18 6 ο. earlier. A similar line, line number 9 and 10, where 7 you say that the central view of FP&L on the matter of 8 greenhouse gas emissions is that it is time for the 9 nation to move forward with mandatory, economy-wide, 10 11 market based carbon reduction programs. Are you familiar with what is being done by 12 13 Lakeland Utilities as far as their program? The utility places a solar hot water heater in the property and then 14 maintains it and then charges by use of a meter. So 15 it's an innovative -- back to innovative, it's very much 16 17 like Microsoft, where we all lease their operation system. Is that something you would be looking to 18 exploit to its fullest extent? 19 While I'm not familiar with all the details of 20 Α. 21 the Lakeland project, I should tell you that we are putting together a program along those lines. I don't 22 23 know if it matches Lakeland exactly, but we are kind of 24 configuring a pilot program for solar water heaters on 25 rooftops, because we think that that has some potential.

FLORIDA PUBLIC SERVICE COMMISSION

And I have met with the people that are working on this several times. It's not quite ready to be presented to vou all.

1

2

3

4

But I think it's also fair to say that today, it would not move the need enough to offset the need for 5 this plant. But it's one of many things that we have to 6 try. I think it's important for this Commission to know 7 that we are not opposed to demand-side management. Ι 8 think our record speaks for itself. We're not opposed 9 to renewables. We just haven't come up with a way that 10 we can offset the huge demand that we have in the state 11 and at a scale big enough that it would move the needle 12 13 in terms of fuel diversity.

But I think that you can expect that we will 14 -- we pride ourselves in this. We pride ourselves in 15 being innovative, and we pride ourselves in being 16 responsible citizens. And I think you will find that we 17 will continue to come forward with at least as many 18 ideas as we can think of that sort of make sense for the 19 public at large and make sense for our customers. So --20 that's probably more than you wanted to hear. 21

No, that's very interesting. I have another 22 Q. question along the same lines. The Florida Solar Energy 23 Center over the years has had a program where they've 24 actually built homes in different areas of the state and 25

FLORIDA PUBLIC SERVICE COMMISSION

had control homes next to them comparing the maximization of not only solar, but appliances and the design of the home. If it was next year in the Legislature required that these standards be integrated into building codes, would you participate as a utility to try to assist in providing services? Are you willing to expand your role so that you could help move that forward and be the Florida Power & Light provider, but maybe in a new role where you install things and take care of them?

A. Yes, we're certainly willing to consider expanding our role. We support a number of these energy efficient homes today. We have a program, sort of a builders' program that we will come in and help design kind of the most energy efficient home.

We've also been participating in Habitat for 16 Humanity, where originally we were helping kind of with 17 the home, but most recently, we are providing the most 18 energy efficient appliances as part of that. And 19 certainly we would consider anything that, you know, we 20 believe that we would be unique in providing and that's 21 cost-effective for the customer. Obviously, we don't 22 want to compete with the any of the number of appliance 23 dealers. 24

25

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Q. And lastly, because I'll save some of my

FLORIDA PUBLIC SERVICE COMMISSION

questions to the other people that you've deferred to, 1 your expert witnesses -- well, I'll just leave it there. 2 Thank you very much. I appreciate your answers. 3 CHAIRMAN EDGAR: Are there questions from 4 staff? 5 6 MS. BRUBAKER: Just a few guick ones. CROSS-EXAMINATION 7 8 BY MS. BRUBAKER: 9 And honestly, if you feel these would be Q. 10 better answered by another witness, please say so. But 11 since we have kind of opened the door with regard to the 12 issues of carbon capture and sequestration, can you tell me with regard to the Glades plant, do you know to what 13 extent it has been designed to be capture-ready? And 14 15 what I mean by that is, for instance, has the site 16 footprint been designed to accommodate additional capture equipment, has the piping and structural design 17 been designed to allow for additional extraction piping 18 19 for exhaust gases, that sort of thing? 20 Α. I will defer to David Hicks on the specifics, 21 because I can't answer at that level of detail, but it's 22 my understanding that there is enough flexibility in the footprint of the plant to allow for ultimate carbon 23 But I will let him cover this in more detail. 24 capture. 25 I think he's more technically competent than I am on

FLORIDA PUBLIC SERVICE COMMISSION

this topic.

2	${f Q}$ . And similarly, with the sequestration, has, to
3	your knowledge, FPL performed any geological studies
4	regarding what's below the plant, what requirements for
5	piping might be needed for sequestration?
6	<b>A.</b> I'm sorry. I'll defer that to David also.
7	Q. Thank you.
8	A. My knowledge is still evolving.
9	MS. BRUBAKER: And that's all staff has.
10	CHAIRMAN EDGAR: Commissioners, any other
11	questions for this witness? No? Mr. Litchfield.
12	MR. LITCHFIELD: No redirect.
13	CHAIRMAN EDGAR: No direct. Okay. Then we'll
14	take up exhibits.
15	Okay. I think first we had the exhibit marked
16	3 on the earlier list, and so seeing no objection, we'll
17	go ahead and enter Exhibit 3, the resumé bio information
18	into the record.
19	(Exhibit 3 admitted into the record.)
20	CHAIRMAN EDGAR: And then Mr. Gross, you had
21	the exhibit that we marked 159.
22	MR. GROSS: Correct.
23	CHAIRMAN EDGAR: Are there any objections?
24	MR. LITCHFIELD: No objection.
25	CHAIRMAN EDGAR: No objections. Okay. We
	FLORIDA PUBLIC SERVICE COMMISSION

	27
1	will go ahead and enter Exhibit 159 into the record.
2	(Exhibit 159 admitted into the record.)
.3	CHAIRMAN EDGAR: Any other matters before this
4	witness is excused? Seeing none, thank you very much.
5	THE WITNESS: Thank you.
6	CHAIRMAN EDGAR: Okay, folks. It's about that
7	time, I think, 5:40. I think that we will break for the
8	day, and we will come back and we will begin at 9:30. I
9	had some construction that slowed me down getting in
10	this morning, and now I know to avoid that, so we will
11	aim to begin at 9:30.
12	And I will ask, as we discussed earlier, if
13	you can get with our staff, with all the parties, and
14	let's discuss how best to go through the witness list
15	with the time we have tomorrow. And we also will be
16	looking at potential dates to discuss, if indeed we need
17	an extension, as it appears we might.
18	Any other matters before we break? No? Okay.
19	Then we are on break, and I will see you at 9:30
20	tomorrow morning. Thank you.
21	(Proceedings recessed at 5:40 p.m.)
22	
23	
24	
25	
	FLORIDA PUBLIC SERVICE COMMISSION

1	CERTIFICATE OF REPORTER
2	
3	STATE OF FLORIDA:
4	COUNTY OF LEON:
5	I, MARY ALLEN NEEL, Registered Professional
6	Reporter, do hereby certify that the foregoing
7	proceedings were taken before me at the time and place
8	therein designated; that my shorthand notes were
9	thereafter translated under my supervision; and the
10	foregoing pages numbered 158 through 279 are a true and
11	correct record of the aforesaid proceedings.
12	I FURTHER CERTIFY that I am not a relative,
13	employee, attorney or counsel of any of the parties, nor
14	relative or employee of such attorney or counsel, or
15	financially interested in the foregoing action.
16	DATED THIS 17th day of April, 2007.
17	
18	Mar. acert
19	MARY ALLEN NEEL, RPR, FPR 2894-A Remington Green Lane
20	Tallahassee, Florida 32308 (850) 878-2221
21	
22	
23	
24	
25	
	FLORIDA PUBLIC SERVICE COMMISSION